



NATURAL HISTORY
MUSEUM LIBRARY
30 MAR 2015



Natural History Museum Library



000184279

30 MAR 2015

Edinburgh Natural History Society

Council elected October 2014

Honorary President
President
Vice Presidents

Elizabeth Farquharson
Peter Leach
Pauline King
Joanie McNaughton
Noeleen Donachie
David Adamson

Honorary Secretary
Honorary Treasurer

Ordinary Council Members

Jean Long, Ian Schoolar, Sandra Stewart, Robert Wallace, Katherine White

Non-council roles within the Society

Excursion Committee

David Adamson, Lyn Blades, Neville Crowther, Tom Delaney, Wilma Harper, Jean Long

Indoor Meetings Organiser
Website and Yahoo Group
Facebook Admin
Journal

Audiovisual support for Indoor Meetings
Library

Joanie McNaughton
Malcolm Lavery and Joanie McNaughton
Wilma Harper and Pauline King
Sarah Adamson edinburghnats@gmail.com
Peter Leach
Pauline King

The aim of the Journal is to create a snapshot of the Edinburgh Natural History Society (ENHS) in 2014. Outdoor meetings are held throughout the year and publicised by programme cards and on the website. Indoor meetings are held monthly at 7.30pm on a Wednesday from September to April, in the Guide Hall, 33 Melville Street, Edinburgh, EH3 7JF. All are welcome and the meetings are publicised on the website.

edinburghnaturalhistorysociety.org.uk

Library

ENHS books and equipment are stored at The Wildlife Information Centre (TWIC) Offices, Vogrie. Contact can be made with Pauline King by email paulinekhome@msn.com

Thank you to members who made contributions and helped to produce Journal 2015, especially Lyn Blades, Jean Long, Jackie Muscott and Sandra Stewart

Drawings

Sarah Adamson Noeleen Donachie
Jackie Muscott Katherine White
Eric Perry - kindly donated by the Estate of Eileen Perry

Photographs

Sarah Adamson Neville Crowther Laura Edwards
Wilma Harper Roger Holme Pauline King
Joanie McNaughton Stan da Prato Vivian Ramsay
Robert Wallace Katherine White

Edinburgh Natural History Society (ENHS)

Scottish Charity No SC 004669

Contact: enquiries@edinburghnaturalhistorysociety.org.uk

Contents

2	Obituaries	
3	Rainfall in Corstorphine in 2014 - an unremarkable year	Munro Dunn
4	Warmest year on record	Jackie Muscott
4	Social Media	Sarah Adamson
4	Observations 2014	
5	Seal and Bird Notes on some Forth Islands	Stan da Prato
6	Corstorphine Hill and its Bumblebees	David Adamson
7	Warblers	Sarah Adamson
7	The Journal: a personal record of excursions	Pauline King
8	Some unusual Galls	Jackie Muscott
9	Wrens	Sarah Adamson
9	Name Changes	Jackie Muscott
10	Intermediate Lichen Identification Course	Anthony Taylor
11	Outdoor Excursions	
58	Indoor Meetings	
62	Forth Island Seabird Counts 2014	Bill Bruce
64	New butterflies: incomers or home-comers?	Jackie Muscott

Obituaries

Connie Stewart

Connie joined ENHS in 1965 and was prominent in helping the society to run smoothly as Honorary Secretary and in many other roles. She was known for organising excursions and holidays further afield, such as Norfolk and Majorca. Connie encouraged many to join the ENHS and was particularly remembered for helping people to learn botany. Her friendships with Nats continued long after she was no longer able to take part in excursions.

Jim Stewart

Jim was a member of the Society from 1977 and was Honorary Treasurer in the early 90's. Jim's main enthusiasm was birds, and his autumn trips on board the MV Gardyloo were particularly memorable.

His other great interest was spiders. In August 1997 he led a unique Nats evening excursion to Red Moss. David Adamson's account reads:

Sixteen spider-hunters assembled at Threipmuir Car Park for this evening excursion led by Jim Stewart. Jim handed out equipment for catching and retaining spiders.

We collected them mainly by thumping birch and heather so that their inhabitants fell onto an upturned umbrella or a white sheet. Before they could scamper away, the spiders were sucked into a plastic pipe and released into tubes or tumblers where they could be studied in more detail. The thumping exercise also disturbed four kinds of ladybird adults, various unidentified ladybird larvae, robber flies, immature shield bugs, ants, aphids and other insects. Only the fading light and the midge bites brought the meeting to an end. In over two hours the group had travelled only 100 yards from the car park but had been completely absorbed in trying to collect and identify the residents of Red Moss.

Somehow, and almost without our realizing it, Jim played a really important part in the lives of his many friends. He will be greatly missed.

Tom Delaney

Bill Clunie

The sudden death of Bill Clunie, a long-standing member of the Society since 1972, was announced at the beginning of December. For many years he faithfully attended our indoor meetings and set up the projector and microphone. Once a year he would lead a bird-watching expedition, as he was an

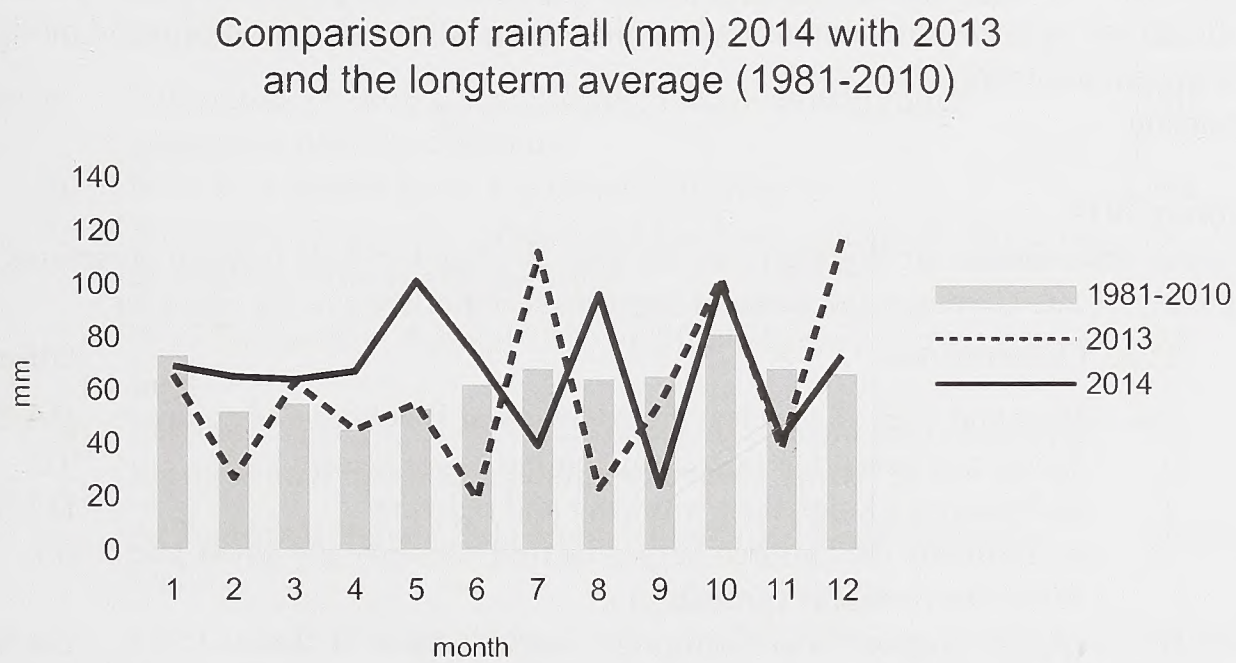
enthusiastic and knowledgeable ornithologist, well-known to other ‘birders’. He was a quiet man and preferred to go out on his own, usually the best way to observe birds and their behaviour. He was frequently encountered at Musselburgh, one of his favourite sites, but sometimes, more unexpectedly, further afield: Tom Delaney once bumped into him encamped on a beach in the Outer Hebrides.

He lived near his mother, and in recent years she developed dementia and could not be left alone. He stopped coming to the ENHS, and though he still attended ornithological meetings he usually had to rush away early. His mother eventually moved into a home and later died. He had recently re-appeared at a ‘Nats’ meeting - and was looking well. We were pleased to see him again, and it’s a shame he did not have a little longer to enjoy his hobby.

Jackie Muscott

Rainfall in Corstorphine in 2014 - an unremarkable year

Overall the rainfall for 2014 was 812mm compared with an average of 752mm for the current reference period of 1981-2010. However, the sharp upward trend in rainfall over the past few decades would have led one to expect a total of nearly 900mm. The Edinburgh area also got off fairly lightly in comparison with some other parts of Scotland and the UK.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	69	65	64	67	101	72	39	96	24	100	42	73	812
2013	66	27	63	45	55	19	112	23	55	102	38	117	722
81-10	73	52	55	45	53	62	68	64	65	81	68	66	752

Two particularly wet days occurred, 3rd October with 42mm and 25th May with 35mm, but the year was notable for the spread of rainfall rather than the frequency of heavy falls. There was a significant fall on almost six days out of every ten, as compared with a more normal five days out of ten.

In two months, May and October, the total fall just reached 100mm. Otherwise, only August recorded a substantial surplus. On the other hand, only July and September had substantial deficits. The longest dry spells were quite brief. Eight days running from 15th June had no significant rainfall, and seven days from 7th September had no rain at all.

Munro Dunn

Warmest year on record

Corstorphine rainfall may have been unremarkable but The Met Office had reported that average monthly temperatures for Scotland had been at their highest. There were no exceptionally warm months. However, the shortage of low temperatures overnight and warmer than average winter months resulted in the bumping up of the averages. Was it the warmest or just less cold?
Jackie Muscott

Social Media

The Facebook group continues to be well used with 130 members and is open to all. On the other hand the Yahoo group is smaller with 55 members and used only by EHNS members. The Yahoo group is still important to notify members about events and particularly changes to the programme with this year being the busiest year for messages since the group was founded in 2010. Although, some members belong to both the Facebook and Yahoo groups, many only belong to the Yahoo group. The website is still relevant and continues to be the major result when searching Edinburgh+Natural+History in the main search engines.
Facebook has been used increasingly and is a popular way to share findings, ask questions and raise awareness of events. The layout of pages is attractive and allows easy participation in a conversation that any logged in user can join. By using the Edinburgh Natural History Facebook you are able to see informal interactions and postings that are intended to inform and motivate your interest in the environment.
Sarah Adamson

Observations 2014

The following observations are highlights of the Year 2014 and include unusual organisms, unusually early or late sightings and those of significant importance to the observer.

Month	Date	Observations	Observer
January	1	Hare and over 40 species of bird, many at Blackness/Abercorn	DA/SA
	1	Raven and peregrine falcon squabbling over Queen's Park	TD
	2	At Botanics - kingfisher, waxwing and redwing	DA/SA
	5	At Dalmeny the children helped us find <i>Ascoryne sarcoides</i> and <i>Pleurotus ostreatus</i> (probably)	RY
	7	Dipper singing under Coltbridge Viaduct - river in spate	DA/SA
	12	At Newbattle Abbey there were numerous nuthatch	Members
	15	Pair collared doves in garden	JMcN
	17	4 siskins 2 male and 2 female in garden	JMcN
	18	3 fulmars Salisbury Crags	JMcN
	23	Great spotted woodpecker every day since Hogmanay and now starting to drum on a fence post in garden	JMcN
	25	Albino grey squirrel WOL Saughton	KD
February	2	Spring declared by our daughter - that night wren, robin and song thrush singing in the dark	SA
	12	First female blackcap in garden - a month late	JMcN
	15	Pentcaitland: Returning early alone encountered a small flock of tits with a pair of nuthatches and a treecreeper	JMt
	25	First singing skylark at Kilspindie Golf Course ENHS recce	JMcN
March	11	Blackford Glen: A banging overhead turned out to be a nuthatch pecking away at a shattered branch	JMt
	13	Craiglockhart Dell: A wren displaying on a bush, a superb view of a kingfisher, a heron, grey wagtails, several dippers and a pair	JMt/KW

		of goosanders	
April	10	Blackford Glen: A dipper singing loudly.	JMt
	15	Black Burn near Dyland Cotts: Several plants of fool's watercress <i>Apium nodiflorum</i>	JMt
May	6	First swifts over River Esk, Musselburgh	JMcN
	8	Swifts over Relugas Road	JMcN
	26	Blackford Glen: Two bird cherries with both 'pocket plums' caused by the fungus <i>Taphrina padi</i> and 'tents' of ermine moth caterpillars <i>Yponomeuta sp.</i>	JMt
June	2	Peregrine on lighthouse railing, Bass Rock Glaucous gull, larger and whiter than herring gull	JMcN
July	28	Kirkconnel Flow: On a hot day encountered an adder which couldn't be bothered to move or even hiss.	JMt/JMy/MC
	31	Sandyhills Bay: Saltmarsh purple with patches of sea lavender <i>Limonium sp.</i>	JMt/JMy/MC
August	7	Elephant hawkmoth caterpillar tramping across our garden	SA/DA
	7	Bumblebee species list up to 12 this year	DA
September	6	Kilspindie – a brown hare hunkered down among rough vegetation near the clubhouse	JMt
	16	Near Five Sisters Bing: Chiffchaff still singing	JMt
	15	Newtonmore: Needle spike-rush <i>Eleocharis acicularis</i> flowering in shallow water beside the river	JMt/JMy/MC
October	2	Near Torphichen: Around 2000 pinkfooted geese grazing in a field	JMt
	14	Ladybirds 30+ two spot, 10 ten spot and a cream spot gathering for the winter in a notice board St Anne's Church	SA
November	1	At Tentsmuir Point a little egret, white-tailed eagle and many seals	SA/DA
December	2	Fife Coast Path beyond Dysart a large patch of winter heliotrope <i>Petasites fragrans</i> in flower. Nearer East Wemyss a lone red admiral was fluttering around in the sunshine over a patch of ivy	LB/MC
	30	Male blackcap appearance in garden	JMcN
	31	Kingfisher and heron at RBGE	SA/DA
<p style="text-align: center;">Key</p> <p>DA David Adamson SA Sarah Adamson LB Lyn Blades MC Mary Clarkson KD Ken Dawson TD Tom Delaney JMcN Joanie McNaughton JMy Jean Murray JMt Jackie Muscott KW Katherine White RY Rebecca Yahr</p>			

Seal and Bird Notes on some Forth Islands

Our first seal trip in October was delayed by a week due to gales on the original date. On the rearranged trip to Inchkeith we counted 180 pups, 200 cows and 17 bulls and a few days later 28 pups, 37 cows and 2 bulls on Craigleith so the season seems to have got off to a good start. On 16th November 2014 birds were counted at the following locations

Inchkeith Island 6 blackbird, 8 wren, 5 rock pipit, 60 linnet, 1 goldfinch, 1 robin, 2 curlew, 1 redshank and 1 kestrel. On the sea: 1 red-throated diver, 1 auk and a probable razorbill. No count of herring, black-headed or great black-backed gulls, cider or

	shags.
Inchcolm Island	1 immature sparrowhawk, robin, blackbird and rock pipit. On the sea: 1 auk and a probable razorbill
Oxcar Island	4 turnstone
Granton Harbour	Approximately 8 whooper swans flew over
Stan da Prato	

Corstorphine Hill and its Bumblebees

If you are in the vicinity of Corstorphine Hill Tower on a sunny day in early June, look out for bumblebees patrolling the ground at about ankle height. They fly with a purpose, rarely rest and appear to have no interest at all in feeding. The bees are all males of a species called the forest cuckoo bumblebee *Bombus sylvestris*. Professor Dave Goulson, the founder of the Bumblebee Conservation Trust, first noted this behaviour on Dumyat Hill, above Stirling University, and calls it 'hilltopping' in his book 'A Sting in the Tail'. Edinburgh Natural History Society witnessed this behaviour on Traprain Law on 14 June 2014. Male bees repeatedly mated with a *Bombus sylvestris* queen which had arrived at the summit; so hilltopping is a mating tactic in this species of bumblebee.

These male cuckoo bumblebees had been brought up by worker bumblebees of an entirely different species, probably the early bumblebee *Bombus pratorum*. The cuckoo queen would wait until the worker bees in the early bumblebee colony were sufficiently numerous, then would move into their nest, displacing the existing queen and destroying any unhatched eggs. The early bumblebee workers would then feed the cuckoo queen's offspring instead of their own brothers and sisters. This behaviour resembles that of the cuckoo in the bird world.

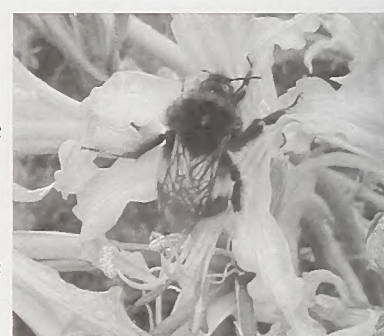
There are only 24 or 25 species of bumblebee in the UK, all with the genus name *Bombus*, and some of these are confined to either southern England or the north-western fringes of Scotland. Therefore, Corstorphine Hill is fortunate in being home to at least 10 species of bumblebee. Of these, at least 3 are cuckoo species, and the remaining 7 are normal bumblebees, including the tree bumblebee *Bombus hypnorum* which was first recorded in the Lothians in 2013.

Bumblebees are unlikely to be seen in the winter months, when the workers and males have died off and the fertilised queens are hibernating underground. However, as milder weather arrives at the end of February or in March, queens of some species begin to emerge from their winter sleep, and can be found feeding on winter-flowering heathers and willow. From then until late October there should be bumblebees active on the hill.

Three years of recording along a transect of the hill as part of the Bumblebee Conservation Trust's BeeWalk national survey has allowed me to develop my ability to identify different species and to recognise the flowers preferred by each species. Male bumblebees pose particular identification problems: they can have very different colour patterns to the female workers of the same species, and colour patterns can vary a lot even between males. For example the male forest cuckoo bumblebees

normally have one pale band on the thorax, and a white tail. However, many have ginger tails, and some males can be completely black with no pale band on the thorax. Therefore a recorder needs to learn more than ten colour patterns before being able to confidently identify the different species.

In early summer many bees feed on raspberry flowers. There are patches of raspberry bushes between the Tower and Clermiston Road, and above Murrayfield Hospital. Later, male bumblebees enjoy lazing about on thistle and knapweed flowers. These are best found on the edges of the areas of cut grass on the west side of the hill. However the walled garden has the greatest variety of flowering plants anywhere on the hill, and favourite flowers for some species are garden angelica, catmint, viper's bugloss and, towards the end of the summer, the lavender row at the top of the garden. The red-tailed bumblebee *Bombus lapidarius* appears particularly to like meadow cranesbill



flowers, while garden bumblebees *B. hortorum* use their long tongues to feed on the nectar of foxgloves and white dead-nettles.

There are always opportunities to improve the hill for bees: less grass cutting and more red clover would be two simple ways to provide more food and suitable habitat. Finally, if you would like to get involved with bumblebees, please contact the Bumblebee Conservation Trust. The Trust still requires more BeeWalkers to survey transects, with the aim of building up evidence of bumblebee numbers and their particular plant preferences, so that any changes can be monitored and action taken to help prevent further declines.

David Adamson

Warblers

Warblers are often mentioned in reports and I wonder if readers would be surprised by the conservation category of some of the warblers identified in this journal. The characteristics of these birds are very diverse and belong to the scientific family of warblers and its allies *Sylviidae*. Found worldwide, they are dainty, inconspicuous and often solitary birds. Those attracted to them appreciate their markings and their warblings which are more often than not a distinctive phrase that is not always melodious.

The following shows the status of warblers recorded during excursions this year – see below

- Red – grasshopper and wood warblers
- Amber – whitethroat and willow warbler
- Green – blackcap, chiffchaff, goldcrest, lesser whitethroat, garden, reed and sedge warblers

Red, amber and green denote the categories of conservation importance of birds in the UK.

The **red list** criteria are the species that are globally threatened, with a historical population decline in UK between 1800-1995, and severe (50%+) decline in breeding population and a contraction of breeding range over the last 25 years.

The **amber list** criteria are that species have an unfavourable conservation status in Europe, a historical population decline now recovering, a moderate - up to 50% - decline in breeding population, a contraction of breeding range and a decline in non-breeding population over the last 25 years. Also included are rare breeders with up to 300 breeding pairs, rare non-breeders with less than 900 individuals, localised with at least 50% of populations in less than 10 sites and those internationally important with at least 20% of the European population in UK.

The **green list** includes species that occur regularly in the UK but do not qualify under any of the above criteria.

Introduced birds have no specific conservation status. It indicates a species that has escaped and bred in the wild or has been deliberately released into the wild at some point.

You can download the full version of the Birds of Conservation Concern from the Royal Society for the Protection of Birds website which lists the UK bird species by status category.

Sarah Adamson

The Journal: a personal record of excursions

I recently came across this article online which made me think about our Journal and the scope we might allow ourselves to further expand its content in future years, in addition to the photos and illustrations.

'The Field Book of Robert Silberglied (1946-1982)'

What do you expect to find in a field book? Specimen numbers, sketches, photographs and beer labels?

Open Silberglied's field book from 1965 and that's exactly what you'll find. He removed and carefully pasted beer labels from Ballantine Brewery, Dos Equis and Cerveceria Moctezuma across the inside covers of the volume.

Robert Silberglied, an entomologist, was an Assistant Professor of Biology at Harvard University

and Assistant Curator of Lepidoptera at the Museum of Comparative Zoology. His field book from 1965 is part of a collection in the Smithsonian Institution Archives and documents field work completed during his days as an undergraduate student at Cornell University.

In Silberglied's field book he does not comment in the text about the novelty of the trip, but instead demonstrates the travel and social side of the work with his choice of inserts and ephemera. Each item is carefully attached, and even after nearly 50 years, these items are well affixed. Items include news clippings, beer labels, postcards showing accommodation and tourist spots and even the letter signed by his parents giving permission for him to take part in the trip. In his notes, he took the time to list each member of the collecting trip, including those who appear to be family members, and which vehicle they are taking.

He describes travel en route:

July 12, 1965 - Two bees flew in car window in Chattanooga, Tennessee, and were collected. At gas station in Livingston, Alabama, I noticed some very territorial butterflies: *Nymphalid* on gas station pump, *Libytheid* at mud puddle.

Sadly, Silberglied died in a plane crash and this is how Harvard's Edward O Wilson described the loss.

Silberglied had a 19th-century naturalist's ability to immerse himself in nature and see things that hadn't been described before, and a 20th-century scientist's ability to use technology to unravel the rules of the natural world.

Perhaps our editor will need to take a strong line on which extra memorabilia from excursions could be copied and included in the Journal; or perhaps members are already saving their own extras to store in their copy of the Journal after it is published each year.

Pauline King

Reference:- The Field Book Project, www.mnh.si.edu/rc/fieldbooks, is an initiative to increase accessibility to field book content that documents natural history. Through ongoing partnerships within and beyond the Smithsonian Institution, the project is making field books easier to find and available in a digital format for current research, as well as inspiring new ways of utilizing these rich information resources. At the Smithsonian National Museum of Natural History, Washington DC, we inspire curiosity, discovery and learning about nature and culture through outstanding research, collections, exhibitions and education.

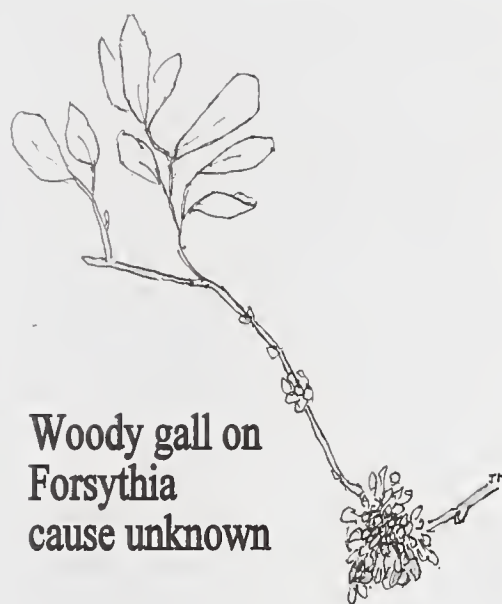
Some unusual Galls

Most plant galls are caused by insects, though a number are caused by fungi. Rusts and smuts do not on the whole produce spectacular galls, but some parasitic fungi do. One that I've seen quite a lot of this summer is the 'tongue gall' on alder. It's caused by the fungus *Taphrina alni* which affects the maturing female catkins. Red at first, contrasting nicely with the green cones, the galls turn and twist and can be up to an inch (2.5 cm) long. Eventually they go hard and black. I've seen quite a number of affected trees this year, some with quite a lot of infected cones, some cones with as many as half a dozen tongues protruding. Both the native alder *Alnus glutinosa* and the frequently planted grey alder *A. incana* can be affected. Italian alder *A. cordata* and the red alder *A. rubra* are also planted occasionally, but I haven't yet recorded tongues on either.

In the 1940s these galls were apparently a rarity, found only in Cornwall, but they are now common in the Lothians and further north.

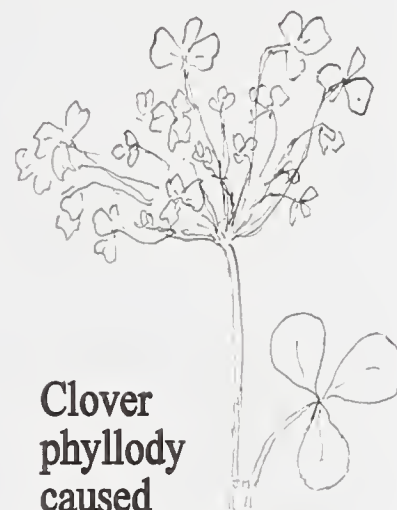


**Tongues
on alder cones caused
by a fungus**



**Woody gall on
Forsythia
cause unknown**

Plants, like animals, can also be infected by bacteria, viruses etc, and these can occasionally cause galls. It was thought for a time that the woody galls found on forsythia *Forsythia x intermedia* were caused by a particular bacterium, but since it has proved impossible to spread the infection by injecting the suspect bacterium the cause remains a mystery. The galls are quite impressive and take the form of large woody lumps on twigs and branches. There are quite a lot of them on a forsythia on the back green, but it does not seem to do any harm as the tree continues to flower and to grow well. At Jean Long's outing to



**Clover
phyllody
caused
by a phytoplasma**

Formonthills we encountered 'galls' on white clover *Trifolium repens*.

The florets on the flower-head had been transformed into leaves, and this is known as clover phyllody, phyllody being derived from the Greek

meaning literally 'leaf-form'. It is thought this transformation is caused by a *Phytoplasma*, previously *Mycoplasma*, spread by leaf hoppers *Cicadellidae*. A phytoplasma it appears is something not quite a bacterium nor yet a virus - any medics around?

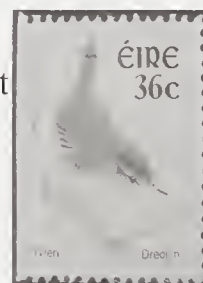
Jackie Muscott

Ref: British Plant Galls, Margaret Redfern and Peter Shirley, FSC Publications

Wrens

Wrens in the garden are such busy and noisy birds. This year there seem to have been so many and we were especially delighted when a pair set up home in an exposed nest box. These normally noisy birds became silent. After building their nest they raised five or more chicks with their beaks getting higher and higher up in the box until one day in late July they were gone. For a while afterwards we were aware that the youngsters were being fed in the area. A few days later the sound of wrens returned.

Sarah Adamson



Name Changes

I was recently taken aback when David Adamson called rauli, a southern beech *Nothofagus alpina*. This was not the name I knew it by, but when I got home I discovered I had missed a recent name change. Rauli was recently known a *N. nervosa* and before that *N. procera*. The nice thing about scientific names is of course their universality – and stability.

Some discarded names cannot be easily forgotten as they are commemorated by diseases or parasites. Burnet rose has now reverted to an earlier name *Rosa spinosissima* though for some time it was known as *R. pimpinellifolia*. It has a gall and a rust both peculiar to the plant: the rust *Phragmidium pimpinellifoliae* must have been named relatively recently, while the wasp *Diplolepis spinosissimae* which causes the gall must have been named during the plants earlier incarnation as *R. spinosissima*.

Other plants which have reverted to earlier names include betony and broad-leaved ragwort. Betony, recently known as *Stachys officinalis* has now gone back to *Betonica officinalis* which makes sense of the English name, while broad-leaved ragwort, recently *Senecio fluviatilis* has reverted to *S. sarracenicus*, which makes sense of its alternative English name Saracen's woundwort. This name, in the form of Saracen's consound, goes back at least 500 years and refers to the plant's use to treat wounds. It's a more memorable name. Perhaps we should revive it.

Jackie Muscott

Intermediate Lichen Identification Course at Kindrogan Field Studies Centre

14th - 19th April 2014

I became a lichen enthusiast whilst studying at Bangor in North Wales. Scotland's lichen flora is even richer so I took every opportunity I could to learn about it when I moved up here to study at the Royal Botanic Garden of Edinburgh (RBGE), from attending identification days for lichens in specific habitats to joining experts in the field. However, I felt I was missing some important lichenology skills. I was learning about the rarer, specialised lichens of the west coast or mountain tops, but bypassing the commoner lichens. Nor was I picking up how to better identify lichens using a microscope. Many people within the British Lichen Society had recommended the course at Kindrogan Field Studies Centre to get past my lichen plateau. The Edinburgh Natural History Society generously offered to fund this course led by Dr. Rebecca Yahr, RBGE, who expertly and enthusiastically guided us through the keys and to correct identifications. Kindrogan is in a fantastic location for lichens, with a good mix of habitats. In the grounds I learned about a common white crustose lichen that grows on bark and mosses called *Phlyctis argena*, one which I had wondered about in the past but didn't know how to identify. A specimen from Braemar in Aberdeenshire exercised my mind for the rest of the week. A rock that marked the start of a walk up through the pine plantation to the Lion's Face, a place that is something of a lichen Mecca, had a number of rusty orange lichens with black fruits on them. I picked up a bit that had flaked off the rock and spotted *Tremulecia atrata*, an orange crust with sunken black fruits. This lichen grows on metal-rich rock and the orange colouration comes from iron which is absorbed by the lichen. Next to it was another rusty lichen with larger, convex fruits that neither myself nor Rebecca could identify. Rebecca suggested I take the sample in a paper packet back to the laboratory for further testing. Whilst at Braemar we searched without luck for the tiny and rare *Cladonia botrytes* which used to grow on the stumps of felled pines in the plantation and is critically endangered in Scotland. We found *Arctoparmelia incurva*, an upland species with beautiful big, pale greeny yellow globes on its surface. These were the soralia that produce soredia by which the lichen reproduces asexually. Back at the laboratory I subjected my Braemar specimen to tests to identify it using The Lichens of Great Britain and Ireland key. Carefully, using a razor, I sliced some of the fruits as thinly as I could, and then had a look under a microscope. Under the higher magnification the structure and colour of the fruit became much clearer, and a previously black fruit revealed itself to be emerald-green and rich brown, with clear simple spores. When looking under a microscope at the fruit of lichen you are reminded that you are dealing primarily with a fungus, and for the most part lichens are *Ascomycetes*, with sac-like asci each bearing around eight spores. However, I still could not identify my lichen and used chemicals to try and see the fruit much more clearly. A solution of bleach did not reveal anything, but a solution of potassium hydroxide, KOH, loosened the fruit a little and highlighted the colours. Passing an iodine solution through the slide turned the starches in the tips of the asci indigo, but I could not get the asci to lie flat enough to see any pattern. The next step was to blast the sample under the slide with nitric acid which helped to get the asci to lie flat and then I tried the iodine solution again. After all of that I still could not key out the lichen and I felt as though I had thrown everything but the kitchen sink at it. So I did what every lichenologist does in situations like this. I emailed Brian Coppins with a detailed description of what I had, and he replied with a suggestion of *Lecidea silacea*, an iron exuding lichen that would fit the bill! When I was not wrestling with rusty crusts, we visited Glen Tilt which had fine examples of a particularly special lichen community called the Lobarion. This community exists in humid, sheltered places and Scotland has some of the best examples in the world, especially on the west coast. The key species here are the four species of *Lobaria*, including the showy tree lungwort, but we also found the anti-septic scented *Parmeliella testacea* and the tiny blue plates of *Normandina pulchella*.

Over dinner the group of lichen enthusiasts discussed all things lichenological with our tutor. Rebecca highlighted the mystery of how *Thamnolia vermicularis* spreads itself around. This lichen

grows in worm-like strands on the tops of hills and mountains in Scotland. Whereas nearly all other lichens show some form of reproduction, either producing spores in their fruits or forming structures that break off and grow into new lichen thalli, isidia and soredia, *T. vermicularis* does not. It simply remains as these wormy, pale, smooth lichens with no signs of reproducing. So how does it get around? One answer may be that they are transported from hilltop to hilltop on the feet of plovers or some other upland bird.

After my week at Kindrogan, I was able to use my new found lichen skills on a trip to South-West Ireland with the British Lichen Society. Hopefully, these skills will come in handy in the future as I pursue a career in professional ecological surveying. I am keen to start investigating lichens in unusual or inaccessible habitats, such as at the very tops of trees.

I would like to thank ENHS for enabling me to attend this course. Plantlife described lichenologists as endangered in their Ghost Orchid Declaration of a few years ago, and the ENHS is actively trying to address this skills gap. I hope to share my skills with other members, and you shall be seeing me at field meetings in the future espousing the beauty and complexity of our lovely lichens.

Anthony Taylor

Outdoor Excursions

South Esk Circuit

11th January 2014

Leaders: Jean Long and Lynn Youngs

It was a frosty morning when 21 people gathered just outside Waterfall Park, Dalkeith. First we walked along to the bridge over the South Esk to view the waterfall which gives the park its name. Last year the council sowed wildflower seeds in the park and a few corn marigolds *Glebionis segetum* and feverfew *Tanacetum parthenium* were still in flower.

We entered the wood, passing a number of yews *Taxus baccata* and made our way to the Maiden Bridge so called because in 1503 it was crossed by Princess Margaret, daughter of Henry VII of England, on her way to marry James IV of Scotland. The couple met for the first time in Newbattle Abbey just before they were married in Holyrood Abbey. While on the bridge we were pleased to see a male goosander *Mergus merganser* and a dipper *Cinclus cinclus*. Here we left the South Esk to explore the woods round the east side of Newbattle Golf Course. Lord Ancrum's Wood is now managed by Forestry Commission Scotland. Notable trees growing here were Corsican pine *Pinus nigra* var *maritima*, Turkey oak *Quercus cerris*, white poplar *Populus alba* and hazel *Corylus avellana* which was in flower.

We crossed the Queen Margaret Burn and later followed the Mary Burn down into the grounds of Newbattle Abbey College. A number of flowering plants were seen on this stretch of the walk including sanicle *Sanicula europaea*, wood speedwell *Veronica montana*, woodruff *Galium odoratum*, golden saxifrage *Chrysoplegium oppositifolium* and a flowering common ragwort *Senecio jacobaea*. Grasses were also abundant along the Mary Burn with some lovely specimens of false brome *Brachypodium sylvaticum*, hairy brome *Bromopsis ramosa* and reed Canary grass *Phalaris arundinacea*. Remote sedge *Carex remota* and wood sedge *Carex sylvatica* were also found. Before crossing the bridge into these grounds we stopped to admire the ice house with the interesting carvings – the sun, a unicorn, a boar and a Maltese Cross as well as two sets of initials. Inside maidenhair spleenwort *Asplenium trichomanes* was growing on the walls.

Before turning round to follow the South Esk back to Waterfall Park we went over to look at a fine specimen of deodar *Cedrus deodara* with old male catkins lying on the ground below. There were also some large western hemlock *Tsuga heterophylla* with their very small cones. Although we had only covered about three miles we had been out for over five hours proving that there had been many interesting things to see. A lot of time was spent looking at fungi and two in particular were of great interest. David Adamson found white saddle *Helvella crispa* and Mary Clarkson was pleased to discover *Pluteus plautus*. Other fungi highlights included witches butter *Exidia glandulosa*,

yellow brain fungus *Tremella mesenterica*, southern bracket *Ganoderma australe*, oyster fungus *Pleurotus ostreatus*, turkeytail *Trametes versicolor* and winter twiglet *Tubaria hiemalis*.

Birdwatchers were glad to hear and see nuthatches *Sitta europaea*. The best fern of the day was one clump of hard shield fern *Polystichum aculeatum*. Hart's tongue *Asplenium scolopendrium*, scaly male fern *Dryopteris offinis* agg. and broad buckler fern *Dryopteris dilatata* were also seen.

Those interested in mosses, lichens and liverworts were not disappointed. *Evernia prunastri* and *Physcia adscendens* were two of the seven lichen species identified. Moss species included *Brachythecium rutabulum*, *Campylopus introflexus*, *Didymodon fallax*, *Homalothecium sericeum*, *Plagiomnium undulatum* and *Thamnobryum alopecurum*. Five liverworts were identified as *Lepidozia reptans*, *Pellia epiphylla*, *Lophocolea heterophylla*, *L. bidentata* and *Plagiochila porelloides*.

Although a cold winter's day Rob Wallace also found some minibeasts including *Pterostichus madidus*, a very common ground beetle found under a log, and blue willow beetle *Phratora vulgatissima* which was found under bark on standing dead-wood. Maybe sometime in the future we'll manage the second half of this walk which we didn't have time to do, there having been so much for us to look at in the first half.

Thanks to David Adamson, Patrick Chaney, Mary Clarkson, Jean Murray, Jackie Muscott and Rob Wallace for helping to compile this list.

Jean Long and Lynn Youngs

Winton Walk

15th February 2014

Leader: Pauline King

This circular walk followed the 5km path around the Ormiston Express Route and despite a rainy start to the day, 18 members joined the excursion.

Starting from the Sinclair Bridge in Pencaitland, and following the path upstream we walked northwards along the edge of the wood where we strained to hear some varied birdsong before going on to the Pirnies Braes Wood, named after the bobbin makers who once lived there.

We moved from the high ground down to the river and followed it to Kingfisher Bridge gaining some shelter from the wind and in the hope of getting further sighting of the four goosander *Mergus merganser* which had flown up stream, probably looking for nesting sites. A fungus collected here was later keyed out by Elizabeth Farquharson and identified as *Lyophyllum decastes*.

The large flocks of long-tailed tits *Aegithalos caudatus* had started to break up into pairs and we were invisible to pairs of robins along our path who were intent only on each other.

Lunch stop was in the conifer woodland where we came across remains of a sparrowhawk meal *Accipiter nisus* and cones stripped by grey squirrel *Sciurus carolinensis*.

Passing the flooded ponds which were spilling out onto parts of the track we turned left towards Ormiston where the path continued along the edge of two fields before joining the disused railway track rising up to the main road. Red campion *Silene dioica* was in flower early and yellow brain fungus *Tremella mesenterica* was growing on gorse.

Crossing the road we had a brief foray round Black Wood seeing birch polypore *Piptoporus betulinus* then back onto the railway path, running behind the maltings and on to the village.

Pauline King

Lochore Meadows Country Park

29th March 2014

Leader: Joanie McNaughton

After winter's semi-hibernation of monthly excursions, March 29th marked the first excursion of the spring when we return to the weekly rota. Perhaps we'd emerged a little early given the low temperatures, mist and wind-chill we had to contend with! The location was Lochore Meadows in

Fife and it was meant to be a bird-focussed outing. Gadwall *Anas strepera*, breeding great crested grebes *Podiceps cristatus*, sand martins *Riparia riparia*, whooper swan *Cygnus cygnus* and possibly smew *Mergus albellus* were on the cards for the day. After ticking off a goldcrest *Regulus regulus* and a few finches including bullfinch *Pyrrhula pyrrhula*, chaffinch *Fringilla coelebs*, greenfinch *Carduelis chloris* and siskin *C. spinus* about the car park we started the walk round the loch itself. Without much to see at first, we made a quick diversion into some nearby woods and found a few fungi - *Coprinus* sp., candlesnuff fungus *Xylaria hypoxylon* and scarlet elf cup, later identified under a microscope as *Sarcoscypha austriaca*. A little further on we reached an area where the islands in the loch afforded some cover from the wind and more birds could be seen. Tufted ducks *Aythya fuligula* were predominant, with the odd goldeneye *Bucephala clangula* mixed in with them. Several pairs of great crested grebe were seen and some even appeared to be courting despite the unromantic weather. Hawking just over the water's surface and presumably also hiding from the worst of the wind were dozens of sand martins - the first hirundines of the year for most of us. A surprise yaffle of a green woodpecker *Picus viridis* got most of us quite excited, but further investigation proved it to be a horse that was really good at bird impressions.

We moved on into more covered surroundings with plenty of chiffchaff *Phylloscopus collybita*, wrens *Troglodytes troglodytes* and a song thrush *Turdus philomelos* singing around us. Over at Petrie's Ponds, we had another pause and pondered over unusual tree rings, an otter *Lutra lutra* spraint and a water cricket *Velia* sp. At a nearby pool we had lunch, with views of several pairs of gadwall and a single whooper swan.

The second half of the walk became more exposed to the wind and the wildlife was much reduced with only the odd swan or goose withstanding the weather. We stopped around some gorse *Ulex europaeus* to look at the yellow brain fungus *Tremella mesenterica* growing upon it, as well as some pale, purple splotches which may have been *Peniophora incarnata*, also frequently found on gorse. A little further on was the Clune, a mossy boulder-strewn slope which was full of interesting bryophytes and a few small invertebrates. From there it was a short walk back to the car park in fairly exposed conditions with few birds to be seen other than more gulls and a few mallards *Anas platyrhynchos*.

Amongst the invertebrates seen that day were at least three buff-tailed bumblebees *Bombus terrestris* as well as *Megabunus diadema*, a small harvestman with two rows of spines over its eyes rather like a Mohican haircut and *Dolerus* cf. *nitens*, an early-season sawfly.

A few of us also took advantage of the damp to look at the mosses and liverworts in their best condition. Ali Shuttleworth was particularly helpful pointing out several species that were new to the rest of us. From my own potted list of the day we recorded at least 20 species of bryophyte including *Cryphaea heteromalla* which is mainly a southern species, *Pogonatum aloides* which has bright white spore capsules and *Ulota drummondii* which Ali thought may be a new record for that hectad.

From my notes the total haul was 43 species of bird and one woodpecker/horse hybrid, more than 22 species of moss or liverwort and 10 species of fungus.

Rob Wallace

Where the Kelty Burn joins Loch Ore an odd looking cormorant attracted our attention and we finally agreed that it was a continental cormorant *Phalacrocorax carbo sinensis*.

Joanie McNaughton

Leaderfoot - Earlston Circuit

5th April 2014

Leader: Molly Woolgar

The walk started at Leaderfoot, a change from the original plan, and followed the Leader Water upstream from its confluence with the Tweed. The group of 15 progressed slowly, often stopping to examine unusual plants or to scan the trees for spring birds.

Sarah-Louise found the first unusual plant, the alternate-leaved golden saxifrage *Chrysosplenium alternifolium*. It is much scarcer than its opposite-leaved relative and is noticeably larger. Nearby was the diminutive town hall clock *Adoxa moschatellina*, and a bit further upstream we found the pale pink parasitic toothwort *Lathraea squamaria*. In addition we enjoyed seeing many of the more common spring plants for the first time in 2014.

The call of the nuthatch *Sitta europaea* was the most familiar birdsong on this excursion. Although nuthatches have been well established in southern Scotland for a number of years, they are not usually as abundant as in these riverine woodlands. Chiffchaff *Phylloscopus collybita* were almost as common, and we saw at least four dippers *Cinclus cinclus*, a goosander *Mergus merganser* and a grey wagtail *Motacilla cinerea* on, or by, the Leader itself.

A few insects were active on a relatively mild day. We saw a stonefly, a mayfly and bumblebee queens of at least two species, *Bombus terrestris* and *B. hortorum*.

Jean Murray was looking at the bryophytes and identified several that I had missed or did not know. Many of the mosses and liverworts were fairly common species, but my eventual tally, with Jean's help, was nine liverwort species and some thirty-five mosses, at least identified to genera.

Having spent such a long time immersed in all this natural history, we eventually had to retrace our steps back to the cars, still serenaded by nuthatches and chiffchaff.

Thanks to Molly Woolgar for leading a very interesting walk.

David Adamson

Dunglass and Bilsdean

12th April 2014

Leader: John Palfery

The circuit around Dunglass and Bilsdean covers a variety of habitats including mature woodland in the two deep gorges, scrub at the base of the cliffs, the cliffs themselves, the pebble beach and sea, and pasture and arable farmland. A range of birds can be expected and the eleven members who met on a windy morning beside the old Dunglass Bridge were not disappointed.

Next to the car park area were young stone pines *Pinus pinea*, planted by Railtrack in compensation for the mature specimens on the railway embankment which they felled some years ago. The Dunglass Burn flows through a deep, well-wooded ravine and this is best appreciated from the bridge. As we stood on the parapet, some summer migrants, chiffchaff *Phylloscopus collybita*, willow warbler *P. trochilus* and blackcap *Sylvia atricapilla* were singing. At the entrance to Dunglass Collegiate Church a fine specimen of a strawberry tree *Arbutus unedo* was noted. The path down to the beach took us along the north side of the dean, past the jackdaw *Corvus monedula* colony just above the old mill and through the small but thriving colony of tree sparrows *Passer montanus* which also nest in this area. Just before the beach, the trees give way to dense clumps of sea buckthorn *Hippophae rhamnoides* and here there were some small patches of moschatel *Adoxa moschatellina* with its head of five tiny green flowers, one facing skywards and the other four outwards at right angles to each other like a town hall clock; hence its folk name of 'Town Hall Clock'. Here we also had our first glimpses of the sea and the distinctive seven-whistle call of a migrant whimbrel *Numenius phaeopus* was heard.

As we stepped out onto the beach the full force of the fierce westerly hit us and, after quickly scanning the sea and beach, we moved round to the burn mouth where we could enjoy the sunshine and once again the shelter of the buckthorn. Tom Delaney scanned the sea through his 'scope, checking for migrant passerines and sea duck, divers and auks. A sandwich tern *Sterna sandvicensis* was seen heading north but the movement of passerines which we had observed on the recce two days earlier had ceased. That day a small numbers of sand martins *Riparia riparia*, some swallows *Hirundo rustica* and what appeared to be distant meadow pipits *Anthus pratensis* were passing out in the bay. They seemed to be rounding Fast Castle and then, instead of following the coast line, heading north-west directly across the bay towards Torness. Today, however, there was no

movement, perhaps because of the strong wind. Our focus switched to mammals for Sarah-Louise Davies discovered some otter *Lutra lutra* spraint on pebbles beside the burn and everyone had the opportunity to experience the distinctive 'sweet' smell! Then, to our excitement, Tom found two otters diving and fishing out in the bay and we decided to have our lunch while we watched them. The previous month an adult female with two well-grown young were seen in the sea just off the burn mouth and it is possible that these two were those young, now independent of their mother. Also from our lunch spot we could enjoy the magnificent sweep of the bay from the cliffs on the far side of the burn, past Cove to Siccar Point, famous in the history of geology, to the distant headland of Fast Castle. Towards the end of lunch a purple sandpiper *Calidris maritima* was spotted on the rocks, perhaps the last one we will see until next autumn. Neville Crowther identified another migrant, a white wagtail *Motacilla alba alba*.

As we made our way along the beach to Bilsdean, Neville glimpsed roe deer *Capreolus capreolus* disappearing over the skyline and Tom identified three red-throated divers *Gavia stellata* far out to sea. We climbed up the dean to the waterfall and then walked part way along the cliff-top footpath towards Thorntonloch. The path lies alongside a stone dyke bordering arable fields and gives good views of some fine rock arches. Several plants were in flower and Jackie Muscott was pleased to find four red deadnettle species: red dead nettle *Lamium purpureum*, northern dead nettle *L. confertum*, cut leaved dead nettle *L. hybridum* and henbit *L. amplexicaule*. Later white dead nettle *L. album* was found beside the path in the hamlet of Bilsdean. She also identified two fumitory species: common ramping fumitory *Fumaria muralis* and common fumitory *F. officinalis*. Another good botanical find was sweet violet *Viola odorata* in the wooded dean. It was really too windy for insects but we did manage to see a few early butterflies: peacock *Aglais io*, small tortoiseshell *A. urticae* and green-veined white *Pieris napi*. In summer this is a good spot for wall butterflies *Lasiommata megera*.

Having scampered across the busy A1, we entered Bilsdean village where hoary cress *Lepidium draba* was growing beside the path. Neville explained that this was not a native plant but was introduced into Britain during the Napoleonic wars at the beginning of the nineteenth century. Following the battle of Walcheren in the Netherlands, injured and sick soldiers were brought back to Britain carrying the seeds of *Lepidium* in their palliasses which were stuffed with hay. We returned to Dunglass past the cawing rooks *Corvus frugilegus* in Bilsdean rookery and fields of lambs and pheasants *Phasianus colchicus*.

My thanks to David Adamson for bringing up the rear, and to David and Jackie for supplying details of the plants of interest.

John Palfery

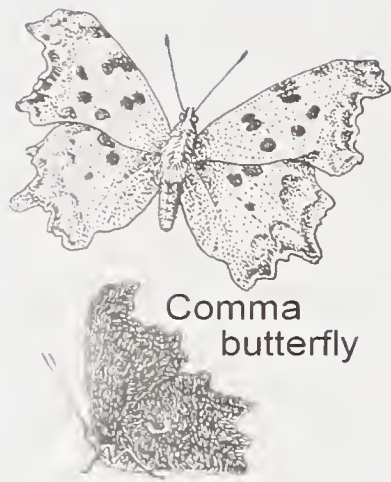
Vogrie to Crichton

19th April 2014

Leader: David Adamson

In January 2013 we walked from Abercorn to Blackness Castle, built around 1449 for George Crichton, cousin of William Crichton who was Chancellor of Scotland. Today 21 of us set off from Vogrie House to visit Crichton Castle itself.

The original castle had been a tower house on the high ground overlooking Crichton marsh and the fledgling River Tyne. William Crichton extended the building around a quadrangle, so that it became a castle more in keeping with his status as Chancellor. He also converted the local parish church into a Collegiate Church where masses could be held for the souls of his family and himself. Long after the Crichton family had fallen from royal favour, the castle became the property of Francis Stewart, Lord High Admiral of Scotland. He renovated the interior along the lines of Renaissance castles that he had seen in his travels in Italy, and these renovations have largely survived to make the castle a building that is unique in Scotland.



On the way to the castle we crossed the Tyne, visited an old limestone quarry and scrambled up a very steep slope that was optimistically signposted as being a path. Rob used his sweepnet to catch spiders, beetles and whatever else was living on the gorse *Ulex europaeus* bushes and in the dry grass. Jackie stayed nearer Vogrie to botanise and found wood goldilocks *Ranunculus auricomus* and large bittercress *Cardamine amara*, as well as seeing comma *Polygonia c-album*, peacock *Aglais io* and small tortoiseshell *A. urticae* butterflies. Roger and Neville led a group to look at herb paris *Paris quadrifolia*, growing alongside a sedge. Ron found the leaves of twayblade *Neottia ovalis* on a shady roadside verge. Buzzards *Buteo buteo*, willow warblers *Phylloscopus trochilus*

and chiffchaff *P. collybita* were seen and heard. The sun shone without interruption on the awakening woodlands.

After lunch beneath the castle walls, Mary and others briefly visited the castle before we all made our way to Crichton Church. The gravestones of the family of the Reverend Henry Duncan were of particular interest to Sue, because her great-grandmother had been nurse to the minister's children in the late nineteenth century.

With some difficulty we found the white flowers and leaves of sweet violet *Viola odorata* on the verge, just where the road divides to go to the church. A redshank *Tringa totanus* seen six days previously was still standing beside its large puddle in a nearby field. There were honey bees *Apis* sp on dandelions and seven-spot ladybirds *Coccinella 7-punctata* among the dog violets *Viola riviniana* and barren strawberry flowers *Potentilla sterilis*.

Returning to civilisation was something of a shock. The Easter sunshine had attracted hundreds of visitors to Vogrie Country Park, and most had been drawn to the refreshments of the Cedar Tree Cafe, a bit like wasps to a pot of jam. So, instead of much-needed ice creams, we made do with the dregs from our flasks before we left Vogrie to the holiday crowds.

David Adamson

Dean Plantation

26th April 2014

Leaders: Wilma Harper and Mark Lawrence

Having done a winter talk on the National Forest Inventory (NFI), I was keen to let people see what it's like to do a total survey of a square of forest. I asked Mark Lawrence who leads the Forestry Commission's NFI survey team in my division to show the Nats how it's done at a wood called Dean Plantation in Fife.

Mark started by giving a quick overview of forest inventories, what they are for and how this one is organised before leading the group into the wood. The basic unit of the NFI is a one hectare square (100m x 100m) statistically assigned from analysis of aerial photographs and satellite iDmages. The squares sit on the national grid but the forest features don't, so the first task for the aspiring surveyors was to determine the square boundaries and which trees were in or out, including some which were windblown. The square is then divided into sections of similar species and storey or vertical layer in the canopy. At first look the square was mainly Norway spruce, mixed broadleaves and larch but Mark said that he would expect the surveyors to have identified over 40 different sections. He then set the Nats to work measuring diameter at breast height (dbh) and top height, the height of the tree with the largest dbh in the plot. These are standardised measurements with rules on how to deal with things like bulges in the trunk and leaning trees. We took turns at measuring tree height with an instrument called a vertex hypsometer, much easier and more accurate than the boy scout method with a staff and a protractor. Trying to find the right tree top isn't as easy as it seemed in the Norway spruce and for the broadleaves working out which branch might be the highest was the main challenge.

The square we were measuring was crossed by a forest road, a stream and a footpath and Mark explained that these linear features also got recorded with some key attributes like condition. On the other side of the road we moved into a more open stand of Japanese larch. Here we looked at how to record seedlings and saplings, the young trees which would form the next generation of the wood. Laying a tape to form a transect, we counted and classified the fallen branches, stumps and bits of log which form the deadwood habitat.

In a couple of hours under Mark's expert guidance, the Nats gained an appreciation of how complex a small area of woodland is when you look at it in detail and how the NFI surveyors need to have skills in forestry and wider ecology and natural history. We said goodbye to Mark at lunchtime and thanked him for giving up his Saturday morning to show us round. For more information on the NFI see www.forestry.gov.uk/inventory.

In the afternoon we set off to explore more of the wood. Although predominantly conifer, there are lots of old and big oak *Quercus sp.*, beech *Fagus sylvatica* and sycamore *Acer pseudoplatanus* trees of real character. Walking up the road to the path into the wood I was able to 'be boring about forestry' again showing people the planting bags which contained the bare rooted nursery grown Serbian spruce *Picea omorika* which would be used to plant the recently felled area at the end of the road. Planting bags are white on the outside and black inside to reduce the risk of the plants being damaged by 'sweating' in the bags which are also stored in the shade of the trees. Serbian spruce whose native range is limited to small areas of the Balkans can grow on a wide range of sites. It is cold hardy throughout Britain and is quite tolerant of exposure and able to grow in areas subject to air pollution. There are few disease problems but it rarely grows fast so it tends to be a minor component of the forest used to add variety to the species mix.

We had a good walk round with notable spots including stinkhorn *Phallus impudicus* 'eggs' and cut-leaved dead nettle *Lamium hybridum*. Rob found larch ladybird *Aphidecta oblitterata*, gorse weevils and hoverflies. The birders list included great spotted woodpecker *Dendrocopos major*, nuthatch *Sitta europaea*, willow warbler *Phylloscopus trochilus*, chiffchaff *P. collybita*, long-tailed tit *Aegithalos caudatus* and buzzard *Buteo buteo*. David and Jackie went in a different direction and as well as plants and mosses were lucky to see two ravens *Corvus corax*.

There are lots of paths, although the steep banks down to the burn proved a bit of a challenge as the ford I had hoped to cross was flooded, and we had an interesting scramble up the bank at one point. All in all an interesting wood with lots of variety internally and good views out across the Forth. In April there were lots of bluebells *Hyacinthoides non-scripta* which in places made a striking colour contrast with the bright yellow oilseed rape in the fields beyond.

Wilma Harper

Abbotsford Circuit

3rd May 2014

Leader: Jean Murray

A dozen or so people met at the car park for Abbotsford House, and some took advantage of the rather impressive lochs at the visitor centre before setting out. Our route took us down to the river via a wooded path and a damp field which must have been flooded regularly, given the marsh plants growing there. It was a little odd to see a patch of marsh marigold *Caltha palustris* growing by a post in the middle of the field.

A pair of goosanders *Mergus merganser* and some male mallards *Anas platyrhynchos* were soon spotted on the water, and later both pied *Motacilla alba* and grey *M. cinerea* wagtails, common sandpiper *Actitis hypoleucos*, a grey heron *Ardea cinerea* and dippers *Cinclus cinclus* were seen, while swallows *Hirundo rustica* and house martins *Delichon urbica* were flying overhead. The river bank had some trees and a curious mixture of marsh and woodland plants: meadowsweet *Filipendula ulmaria* and dog's mercury *Mercurialis perennis*, valerian *Valeriana officinalis* and both greater and wood stitchwort *Stellaria holostea* and *S. nemorum* – the latter quite a rarity in the

Lothians but more common in the Borders. One of the botanical highlights was a patch of meadow saxifrage *Saxifraga granulata*, a very beautiful flower and one that prefers calcareous soils. When we sat down to lunch by the river we discovered leaves of another lime-lover – a hawkbit with fork-tipped hairs on the leaves, probably *Leontodon hispidus*.

Some docks had been attacked by shiny green leaf beetles *Gastrophysa viridula* which can reduce a dock leaf to lace. There were lots of bright yellow egg clutches on the backs of some of the leaves. The meadowsweet leaves were also full of holes, something I had never seen before, a possible culprit being a small brown bug.

Other plants had been attacked by rust species, which like green beetles are mostly specific to one plant. Celandines *Ficaria verna* were in a particularly bad way, mainly as a result of a smut and a yellow rust *Uromyces dactylidis* which hops onto various grasses to complete its life cycle. Dog's mercury was also suffering from a rust *Melampsora populnea* which is only found in the presence of poplars, the alternative host. Large fungi were in short supply, but maze-gill *Daedalea quercina*, a handsome bracket with maze-like gills was later discovered on an oak.

Some adult stoneflies were noticed on a log some distance from the water.

The female is quite large with wings much longer than the body, while the males are smaller with very short wings, incapable of flight. Neville tentatively identified them as the large stonefly *Perlodes microcephala*. Normally one would expect to find them close to the water, so we did wonder how they got so far from the river.

We returned by a winding track through the woods, mainly beech *Fagus sylvatica*, whose pale green leaves were just breaking. There was plenty of birdsong including blackbird *Turdus merula* and song thrush *T philomelos*, warblers and nuthatch *Sitta europaea* which is becoming increasingly familiar in the Lothians, tits and wrens *Troglodytes troglodytes* which seem to be present in large numbers after a mild winter. There were leaves of sanicle *Sanicula europaea* and enchanter's nightshade *Circaea lutea* by the path and best of all two patches of wintergreen, probably *Pyrola minor* not yet in flower. Sadly, large parts of the wood had been invaded by few-flowered leek *Allium paradoxum* which out-competes almost everything else.

Unfortunately it was too chilly for butterflies but David got a decent count of bumblebees, six species. Bees tend to forage whatever the weather – they've got a family to feed, and nature has provided them with nice furry coats.

Back at the visitor centre there was a small exhibition about Sir Walter Scott and of course, a shop and a snack-bar, so the party was able to gather strength for the journey home after a most enjoyable day out.

Jackie Muscott



**Meadow
saxifrage**

Bats at Blackford Pond

7th May 2014

Leader: Peter Leach

Light rain dampened us as the daylight waned and Peter greeted us at about 9pm. He had borrowed enough bat detectors from Anne Youngman at the Bat Conservation Trust (BCT) for our party of eleven. A demonstration followed about how to use the detector and how to interpret the crackles and squawks into records of different bat species.

Of the 17 British species of bat, seven live in Scotland and we were told we might expect three species at Blackford. Some of us felt that the weather would deter them from flight, but Peter was confident and thought that the big trees would give shelter to both bats and insect prey.

Almost as soon as we began the round of the pond we had emissions from our little black boxes.

Although the echolocation sounds from the bats are too high pitched for our ears, they are converted

by the 'box' to wavelengths within the range of humans. One control for volume and one for wavelength made the operation quite simple. Interpretation is quite difficult and lots of experience is required to identify with certainty the species and the nature of the activity taking place. The common pipistrelle *Pipistrellus pipistrellus* is our commonest bat which has a sound range centred about 45 kilohertz. There was still enough light to see them overhead and dozens were recorded flitting through the trees. Its close relative the soprano pipistrelle *P. pygmaeus* was soon heard on 55 kilohertz. They too were common. Our hopes of hearing and seeing Daubenton's *Myotis daubentoni* bat which feeds low over water were soon dashed as the rain became a deluge. Their emission range is quite large from 20 to 60 kilohertz, but they are large compared to the pipistrelles and their flight low over water can distinguish them from other species. By 10 o'clock the rain made continuation rather futile so we returned to our cars, not dissatisfied, each with a bundle of BCT pamphlets to read before bedtime.

Neville Crowther

Elphinstone Circuit

10th May 2014

Leader: Lyn Blades

Starting from the car park at Chalkieside, the plan was to follow the same route as the Nats outing of fifteen years ago. Unfortunately, the weather was against us. So instead of completing quite an interesting circuit of five miles or so, we plodded along in the rain for just over one mile on the path of the old railway line towards Ormiston.

This is an area well known to birdwatchers. It is especially good for warblers and, in spite of the weather, six were seen or heard. We had willow *Phylloscopus trochilus*, sedge *Acrocephalus schoenobaenus* and grasshopper *Locustella naevia* warblers, as well as chiffchaff *P. collybita*, blackcap *Sylvia atricapilla* and whitethroat *S. communis*. Garden warbler *S. borin* and lesser whitethroat *S. curruca* which are known from the site were not in evidence, nor were the rare reed *Acrocephalus scirpaceus* and wood *P. sibilatrix* warblers which have been recorded.

In the car park a patch of bright yellow caught my eye. It was only a weed, but the less common early wintercress *Barbarea intermedia*, a non native with all the stem leaves pinnately lobed. Plants of the common wintercress *Barbarea vulgaris* were frequently seen by the edge of the path.

A sedge, with pale leaves and very dark flowers, growing in a damp patch on the edge of a field was of some interest. The rare greater pond sedge *Carex riparia* has been recorded in this area, and on the recce, further along the track towards Ormiston, we did find a large patch of similar plants which we thought to be *C. riparia*. The ones seen on the outing were not very readily accessible and were maybe the more common lesser pond sedge *C. acutiformis*. The jury is still out.

Insects were not much in evidence, with a few bumble bees, *Bombus hortorum*, *B. lucorum* and *B. terrestris*.

Most butterflies were hiding in the wet vegetation, until amazingly, just as we reached our lunch stop, the sun came out. With that there appeared more than a dozen orange tips *Anthocharis cardamines* on a bank of garlic mustard *Alliaria petiolata*, one of their favourite food plants. After lunch the only sensible option was to make our way back to the car park.

Lyn Blades

Dalkeith Country Park

14th May 2014

Leader: Kathy Buckner

Initially we followed the North Esk riverbank from the palace to the bridge before turning back on the opposite bank through mature woodland. Vascular plants of interest included: common figwort *Scrophularia nodosa* distinguished before flowering by the crushed leaves which smell of burnt meat, the tall stock-like plant with pinkish white flowers called dames violet *Hesperis matronalis*, a

native of southern Europe which is common along the River Esk, and fringe cups *Tellima grandiflora*, a North American import, thought to have arrived in wood pulp at paper-mills up river. The woods, which are managed by the estate for timber, are dominated mainly by beech in this area but displayed evidence of considerable longevity in the flowers of the woodland floor. Most noticeable were the swathes of bluebells *Hyacinthoides non-scripta* and wild garlic *Allium ursinum* stretching into the distance, and two other ancient woodland indicators - wood poa *Poa nemoralis* and wood millet *Milium effusum*. Golden-scaled male fern *Dryopteris affinis* agg. and green alkanet *Pentaglottis sempervirens* were also striking.

Our walk through the park brought us at dusk, about 9pm that evening, to the courtyard where bat roosts were known to be located. As if by magic two bat detectors appeared from a rucksack and almost to order one or two bats began to appear from beneath the eaves. Within ten minutes the dribble became a flood from several apertures in the old bricks. Both the ENHS detector and an inexpensive children's one, bought that day, were working well. Common *Pipistrellus pipistrellus* and soprano *P. pygmaeus* pipistrelles were quickly identified to our satisfaction. David stood silently counting as they emerged, and only gave up when the total reached 150 and he was diverted to the river bridge by shouts of delight from others when they discovered a score or more Daubentons bats *Myotis daubentonii* feeding over the water surface. After 15 minutes and now almost completely dark we decided that home beckoned. Meanwhile, a breakaway group had spotted toothwort *Lathraea squamaria*, a parasitic plant lacking in chlorophyll, growing in clumps under large unidentified trees over the bridge. Soon both parties made a quick return to the courtyard and against the glow of the northwestern sky we confirmed that pipistrelles were still emerging, another 50 at least were observed. It was a very satisfying conclusion to a pleasant evening.

Neville Crowther and Kathy Buckner

Loch Lomond National Nature Reserve

17th May 2014

Leader: Joanie McNaughton

Management for this National Nature Reserve (NNR) has recently been taken over by the Royal Society for Protection of Birds (RSPB) from Scottish Natural Heritage (SNH), and I am grateful to both organisations for their advice. It was a very different day in all respects from our visit in 2009. Firstly, the Aber Path was closed, perhaps to do with bad underfoot conditions, or a farmer who put bull and cows on the field, or both. We had to do a last minute re-think on drop-off spot with the bus putting us down at the caravan park. Then there was the weather which was dry to start with, but by lunch time the rain became heavy with prolonged showery downpours for the rest of the day. And, lastly, the underfoot conditions! Being considerably wetter than five years ago, I had to rethink the route here too. No matter, it made for an unusual day!

I was particularly aware from the very start of the number of song thrushes *Turdus philomelos* singing from almost every treetop. Birds noted throughout the day were whitethroat *Sylvia communis* both singing and briefly seen, redstart *Phoenicurus phoenicurus* and spotted flycatcher *Muscicapa striata* both seen fleetingly and four warblers all singing: chiffchaff *Phylloscopus collybita*, willow *P. trochilus*, sedge *Acrocephalus schoenobaenus* and grasshopper *Locustella naevia*. Tree pipit *Anthus trivialis* were heard and seen high up in the Shore Wood canopy. There were goldfinch *Carduelis carduelis*, greenfinch *C. chloris* and a pair bullfinches *Pyrrhula pyrrhula*, great-spotted woodpecker *Dendrocopos major* and no shortage of wren *Troglodytes troglodytes*. On the loch at Net Bay we saw one shelduck *Tadorna tadorna* and four goosander *Mergus merganser*. Snipe *Gallinago gallinago* were displaying over Low Mains/Snipe Flat, with curlew *Numenius arquata*, oystercatcher *Haematopus ostralegus* and redshank *Tringa totanus* there too.

After a rather soggy lunch at Net Bay, we walked across Twenty Acres to the Endrick Water. From here we were forced to take a different route from that taken five years ago. It was difficult to discern path from bog, so I decided to use the causeway, which was quite dry, that cut through the

middle of Aber Bog. Thus, we had a wee bit more walking in Ring Wood and although I could not find a path it was reasonably passable.

Plants seen of particular interest during the day were cowbane *Cicuta virosa*, whorled caraway *Carum verticillatum*, globeflower *Trollius europaeus*, Scottish dock *Rumex aquaticus*, tufted loosestrife *Lysimachia thyrsiflora*, yellow pimpernel *L. uemorum*, wood stitchwort *Stellaria nemorum*, brittle bladder fern *Cystopteris fragilis* and wood horsetail *Equisetum sylvaticum*. It was good to see both bladder sedge *Carex vesicaria* and bottle sedge *C. rostrata* to compare these sedge species.

Steve Longster, the Site Condition Monitor Officer at SNH, had kindly given me some information and advice as to what we might find. Sadly we could not claim a bonus point for re-finding the long-lost lesser skullcap *Scutellaria minor* in Whin Park, nor was the small pearl-bordered fritillary butterfly *Boloria seleue* flying. Occurring in the same area, it was a bit early in its season, but we might have been lucky given the early spring and had there been some sunshine and no rain! Nor did we venture into Pentangle Wood to look for the RSPB's reported summer snowflake *Leucojum aestivum*.

We found a variety of insects including two true flies: an enormous crane fly *Tipula maxima* and a snipe fly *Rhagio scolopaceus*. We saw several beetles of interest: a leaf beetle *Hydrothassa marginella* which is a common but pretty species, metallic blue with orangey-red margins to the abdomen and thorax; the green dock beetle *Gastrophysa viridula*; another leaf beetle *Lochnaea caprea*, a common species associated with willows; a soldier beetle *Cantharis decipiens* probably at the edge of its range in Loch Lomond and a click beetle *Aplotarsus incanus*. In the gravel at the edge of the loch we found a common but small species of ground beetle *Notiophilus biguttatus*. Beetles in this genus have enormous eyes for their size. Only two moths were found: one of the micropterygid moths *Micropterix calthella* and the caterpillar of the drinker moth *Philodoria potatoria*. One bumblebee, the garden bumblebee *Bombus hortorum* and one butterfly, a green-veined white *Pieris napi* were also seen.

Sadly, it was an exceptionally wet and soggy day, both above and underfoot, but it did not deter us, never does, and we had a most profitable day.

Joanie McNaughton

With thanks to Rob Wallace for insect support and Katherine White for botanical support.

Carberry Hill

21st May 2014

Leader: Cameron Manson

There was much historical interest in this well-attended walk in the woodlands of Carberry Hill on a warm May afternoon. Lying between Musselburgh and Cousland, Carberry Tower itself is a 16th century tower house, much extended in the 19th century. Formerly, the home of Lord Elphinstone, it then belonged to the Church of Scotland and is now a hotel. Although the immediate vicinity of the hotel is private, most of the surrounding woodlands belong to Buccleuch Estates. Cameron Manson, who has led our excursions many times, showed that he is as familiar with these Carberry woods as with his usual stamping ground of Dalkeith Country Park.

After looking at aspen *Populus tremula* with its leaf gall caused by the mite *Phyllocoptes populi* and other trees near the Tower we made our way by slanting paths to the hilltop. In the middle of what once was a prehistoric fort stands a stone monument commemorating Mary Queen of Scots' surrender to the army of the Confederate Lords in 1567. Lord Elphinstone had moved the stone to this spot from its original site near the Tower to give him more privacy from sightseers. Twenty years before Mary Queen of Scots' reign ended quietly on Carberry Hill, a full scale battle fought on the hill's lower slopes and in the fields around Pinkie, had resulted in the defeat of the Scots army and loss of life comparable with Flodden.

There was also plenty of natural history interest in the mature mixed woodlands. Butterflies included the usual collection of whites, orange-tip *Anthocharis cardamines*, peacock *Aglais io* and a red admiral *Vanessa atalanta* plus possible speckled woods *Pararge aegeria*. Sarah-Louise found a ten-spot ladybird *Adalia 10-punctata*, and Ptolemy pointed out a seven-spot *Coccinella 7-punctata* ladybird, a species that has appeared in large numbers this spring. I saw five kinds of bumblebee, including my second Scottish sighting of a recent arrival, the tree bumblebee *Bombus hypnorum*. We heard blackcaps *Sylvia atricapilla* and chiffchaff *Phylloscopus collybita*, and Joanie found the nest of a great spotted woodpecker *Dendrocopos major*. In many parts of the woodland woodruff *Galium odoratum* delightfully formed a veritable carpet.



Blackcap

We visited the large pond, now almost entirely a bed of flag iris *Iris pseudacorus*, with little or no open water but now endowed with a beautifully built wooden bridge. Cameron said there were slow worms *Anguis fragilis* there. We came upon an abandoned fern garden, now dominated by hart's-tongue *Asplenium scolopendrium* and soft shield fern *Polystichum setiferum*. Before returning to our starting point, our path took us past a fine bay tree *Laurus nobilis* in prolific blossom and then through an avenue of giant redwoods *Sequoiadendron giganteum*, which was about the only feature of Carberry that I could recollect from my last visit in the 1990's. Thanks to Sarah-Louise for suggesting this outing and to Cameron Manson for leading and entertaining us today.

David Adamson

Newts at Calder Wood

24th May 2014

Leader: Peter Leach

Calder Wood is perhaps the oldest woodland in the Lothians, dating back to origins in early post-glacial times. Fulsome descriptions of the natural history can be found in the first Statistical Account written in the mid 18th century.

Nine of us met in Spottiswoode Gardens at 9am; too early for some who caught up with us later. It threatened to rain and evoked memories of our last newt excursion here, but although overcast with wet vegetation, we were to be spared.

We tramped off to the first of four ponds which had been set with bottle traps late the night before by Peter and his wife. Peter explained the protocols which were involved in bottle-trapping, particularly where great crested newts are found or suspected. Permits have to be acquired from Scottish Natural Heritage (SNH). Latex gloves were issued for handling the trapped newts and we were advised that one must revisit the traps within the required time limit. The regulations apply to any age of great crested newts, including eggs, with release being made at the point of capture shortly after examination.



Great-crested newt

We caught almost a hundred newts in the four ponds, using 30 bottle traps. Over a third were great crested newts *Triturus cristatus* and the rest palmate *Lissotriton helveticus*. The absent species was the smooth newt *L. vulgaris*. We were shown the identification features of species of all ages and both genders.

Water weeds were found containing, in rolled up leaves, newt eggs of both species within a yellowish jelly capsule. The plant used in this case was water forget-me-not *Mysotis scorpioides*, although many others are also chosen. The great crested newts' eggs were about 4.5 mm-6mm

diameter and the palmate, smaller.

Our captures also included several common aquatic invertebrates. The most impressive was one of the largest beetles in the UK, the great diving beetle *Dytiscus marginalis*. Both adults and larvae were caught. Other water beetles included species of *Haliphus* and *Ilybius*. Lesser waterboatmen *Corixidae* were common, and Ptolemy proudly showed a large dance fly called *Empis tessellata* which was feeding on *Umbellifer* spp.

Two of the ponds were completely shaded by tree canopy and two were in the open. The location didn't seem to influence the numbers caught. Only two bottles were found empty and some had as many as six newts in one trap, perhaps indicating the need to visit traps frequently. We completed the circuit of the wood by noon after another very successful and for most, a novel experience. Thanks to Peter for his precise explanations and even more for the two return trips from North Berwick for our benefit.

Neville Crowther

References:-

Guidelines for trapping Great Crested Newts *Triturus cristatus* www.snh.gov.uk/docs/C210988.pdf

Two organisations are involved specifically in the conservation and monitoring of Herptiles (Reptiles and Amphibians) in the UK. Both have excellent introductory websites:- Amphibian and Reptile Conservation www.arc-trust.org and Amphibian and Reptile Groups of the UK www.arguk.org

Ormiston Dawn Chorus

30th May 2014

Leader: Stan da Prato

With a start time of 0600, this was without question the earliest ever ENHS dawn-chorus excursion. Nevertheless, despite the earliness of the hour, five of us gathered at Crossgatehall at the appointed time on this fine, mild and still morning to walk a section of the Pencaitland Railway Walkway. The western part of the Pencaitland Railway, as far as Ormiston, was built in 1867 to serve the many mines in the area. In addition to coal, the primary goods transported on the line were agricultural produce and whisky from the Glenkinchie Distillery. Mining in the area declined after World War II. By the early 1960's the last of the Ormiston pits had been closed, and the railway line was closed in 1965. Fortunately, in 1971, at the instigation of their visionary planning officer, Frank Tindall, the line was purchased by East Lothian Council, and today, provides a scenic and popular route for walkers, cyclists and horse-riders. Although it runs through a predominantly agricultural landscape, the walkway lies in a corridor, quite broad in parts, of wood and scrubland, with a stream and even a section of marsh: these provide an outstanding variety of wildlife habitats, particularly favoured in spring by warblers. This year has provided an exceptional hawthorn *Crataegus monogyna* flourish, and from the start the whole of our way was to be illuminated by a profuse froth of blossom.

The first section of our walk is bordered on the south side by arable fields and a large equestrian establishment. Yellowhammers *Emberiza citrinella* and chaffinches *Fringilla coelebs* were singing from the hedges. In the next section, the hawthorns and willows *Salix* spp held chiffchaff *Phylloscopus collybita* and willow warblers *P. trochilus*, often singing unseen in the same tree or bush. Farther on, the marshland lies on the north side of the path and is largely composed of packed tussocks of soft rush *Juncus effusus*. A dew-covered horsetail *Equisetum* sp was striking as it glistened silvery-green in the low morning light. The marsh is favoured by sedge warblers *Acrocephalus schoenobaenus* and reed buntings *Emberiza schoeniclus*, and, as whitethroats *Sylvia communis* also flitted along the pathside hedges, we were treated to a masterclass in song identification by our leader. As we strolled east, the habitat became drier, and willow and alder *Alnus glutinosa* carr gradually took over. It was here that grasshopper warbler *Locustella naevia* had recently been heard, but we listened in vain for the 'gropper' this morning.

An extensive bank of dense, attractive-looking scrub occupies the next section of the path. From among the hawthorn, gorse *Ulex europeaus*, broom *Cytisus scoparius* and elder *Sambucus nigra* we heard bullfinch *Pyrrhula pyrrhula* piping, many vociferous wrens *Troglodytes troglodytes* and a couple of song thrushes *Turdus philomelos*. Several blackcaps *Sylvia atricapilla* were singing there too, and then we heard the similar but more sustained song of the garden warbler *S. borin*. Lesser whitethroat *S. curruca*, however, although reported there recently, is notorious for its very short song period, and declined to perform.

Vladimir had to depart early and, with Stan, covered the second half of the route quickly while the rest of us dawdled along. When Stan reappeared we then covered the second half at a more leisurely pace. A large bing on the north side provides a criss-cross of steep tracks obviously well used by local off-road bikers. Stone panels along the trackside detail the names of the various mines that the line served, the dates when each was opened and closed, the number of miners employed and the output achieved.

On the last section, woodland and scrubby wasteland on the south, arable on north, there were more blackcaps and willow warblers, plus another garden warbler singing.

At the Ormiston end there is a spanking new community vegetable-garden, complete with large polytunnel and many flourishing raised beds.

In addition to the birds, we saw: winter cress *Barbarea vulgaris*, an upright perennial crucifer with striking yellow flowers in hedgerows and waste ground; hoary cress *Lepidium draba*, a bushy perennial crucifer found in waste places; greater stitchwort *Stellaria holostea* still flowering well, although noted as an early spring flower; weld *Reseda luteola*, a tall spike with pale yellow flowers arising from a basal rosette common on disturbed ground; hornbeam *Carpinus betula*, unusual in that it originates in southern England and is distinguished by its bundles of fruits resembling ash keys. Green-veined white *Pieris napi* and orange tip *Anthocharis cardamines* butterflies were seen among the wayside hedge mustard *Alliaria petiolata*. Occasional *Geometrid* moths, silver ground carpet *Xanthorhoe montanata* and common carpet *Epirrhoe alternata*, were also seen. Our thanks are due to Stan for leading us on this enjoyable and educational excursion.

Tom Delaney and Neville Crowther

Torduff Circuit

31st May 2014

Leader: Malcolm Lavery

Late spring brought us a bright day for this circuit of the Pentland foothills, taking in the recently closed Torphin Golf Course, Torphin Quarry and the reservoirs of Clubbidean and Torduff.

Walking uphill from the car park along the minor road to the reservoirs there was abundant hawthorn *Crataegus monogyna* blossom everywhere, with songbirds seen or heard, including, goldfinch *Carduelis carduelis*, swallow *Hirundo rustica*, song thrush *Turdus philomelos*, willow warbler *Phylloscopus trochilus*, chiffchaff *P. collybita* and goldcrest *Regulus regulus*. Many typical common spring flowers were out along the roadside.

We turned off the road and through a gate into the golf course, which closed to players six months before and was now looking less manicured and more like open parkland. Our attention was drawn to a couple of ponds, flooded by recent rains and becoming overgrown. At the first pond a large red damselfly *Pyrrhosoma nymphula* was seen darting among the yellow flag iris *Iris pseudacorus* and marsh marigold *Caltha palustris*. The stream running out of the pond had northern marsh orchids *Dactylorhiza purpurella*, hart's-tongue fern *Asplenium scolopendrium* and monkey flower *Mimulus guttatus* growing along its banks and where it connected to the second pond there was purple loosestrife *Lythrum salicaria* and abundant iris.

Butterflies brought out by the sun included small tortoiseshell *Aglais urticae*, orange tip *Anthocharis cardamines* and green veined white *Pieris napi*. We had hoped to spot peregrine *Falco peregrinus* at some point as these have been known to favour the area as a nest site in past years,

and a breakaway group of Nats observed two flying overhead, along with a kestrel *Falco tinnunculus*. One peregrine was later spotted perched on an electricity pylon nearby.

We approached Torphin Quarry and climbed over a wire fence to enter an industrial site which closed over 50 years ago, but whose spectacular cliffs and spacious floor are now home to a wide variety of flora and fauna.

Most immediately noticeable was the raucous din from the many dozens of jackdaws *Corvus monedula* which have colonised the quarry wall, with nesting activity evident on several rock ledges. High up over the cliffs and dwarfing the jackdaws ravens *C. corax* glided in and out of view, and what had looked at a distance to be gulls turned out to be fulmars *Fulmarus glacialis*. Two pairs appeared to be nesting on the rock faces.

Among plants noted on waste ground within the quarry were yellow rattle *Rhinanthus minor* and thyme-leaved sandwort *Arenaria serpyllifolia*. A small copper *Lycaena phlaeas* added to the butterfly count for the day.

We headed uphill and around towards the two reservoirs, hearing yellowhammer *Emberiza citrinella* calling on the way. Dippers *Cinclus cinclus* as well as pied *Motacilla alba* and grey *M. cinerea* wagtails were seen at the stream between the two reservoirs and water avens *Geum rivale*, bitter vetch *Lathyrus linifolius* and bugle *Ajuga reptans* were among the plants growing by the water side.

A few of us mounted a determined search for green hairstreak *Callophrys rubi* butterflies in a cleft beside Torduff as this has been known to be a favourite site, but none were spotted on the day.

However, as a consolation David and Ptolemy, traversing high above the reservoir discovered the semi-parasitic common cow wheat *Melanpyrum pratense*.

So, some very varied habitats and an equally varied wildlife list made for a very enjoyable day out in the hills.

Malcolm Lavery

St Abbs

7th June 2014

Leader: Neville Crowther

A good dozen of us set off on a day forecast to be very bad, but it started dry and we were happy to see two walls with maidenhair spleenwort *Asplenium trichomanes*, black spleenwort *A. adiantum-nigrum* and wall rue *A. ruta-muraria*. They were also covered in a yellow lichen, *Xanthoria aureola*. This was followed by a terrific view of the coast, with a profusion of birds both here and further round:- razorbill *Alca torda*, guillemot *Uria aalge*, rock dove *Columba livia*, black-headed gull *Larus ridibundus*, herring gull *Larus argentatus*, fulmar *Fulmarus glacialis*, kittiwake *Rissa tridactyla*, shag *Phalacrocorax aristotelis*, oystercatcher *Haematopus ostralegus*, linnet *Carduelis cannabina* and meadow pipit *Anthus pratensis* amongst others and one member saw a puffin *Fratercula arctica* disappearing into a burrow.

There were butterflies and insects in profusion. Amongst the former we were slightly too early for the northern brown argus *Aricia artaxerxes*, although the specially fenced-off area was covered with rock rose *Helianthemum nummularium*. However, we saw green-veined white *Peiris napi*, small copper *Lycaena phlaeas*, small blue *Cupido mininus*, common blue *Polyommatus icarus*, red admiral *Vanessa atalanta*, wall *Lasionotata negea* and meadow brown *Maniola jurtina* butterflies and yellow shell moth *Camptogramma bilineata*.

Taking some shelter from the strong east wind, we had lunch near the dam wall. A pair of coots *Fulica atra* were very noisy and the mute swan *Cygnus olor* family were serene. There were many blue-tailed damselflies *Ischnura elegans* by the water's edge and a good specimen of soldier beetle *Cantharis rustica* was found.

Botanically the site held a plethora of species. Amongst the most interesting were silver hair-grass *Aira caryophyllaea*, scarlet pimpernel *Anagallis arvensis*, but chervil *Anthriscus caucalis*, kidney

vetch *Anthyllis vulneraria*, hillsides of thrift *Armeria maritima*, purple milk-vetch *Astragalus danicus*, slender thistle *Carduus tenuiflorus*, fern grass *Catapodium rigidum*, common spotted orchid *Dactylorhiza fuchsii*, northern marsh orchid *D. purpurella*, common birdsfoot trefoil *Lotus corniculatus*, mouse-ear hawkweed *Pilosella officinarum*, burnet saxifrage *Pimpinella saxifraga*, buckshorn plantain *Plantago coronopus*, sea campion *Silene uniflora* and knotted clover *Trifolium striatum*. There was much debate about spring sandwort *Minuartia verna* found by Neville and knotted pearlwort *Sagina nodosa*, but eventually through expert keying by Katherine White, we decided on the former species.

The group enjoyed a very good day thanks to the expertise of Neville, the huge variety of species and the fact that the promised rain held off until 14.45! Much of the fast walk back to the car park was caused by the latter, making difficult the proper identification of *D. purpurella*, not helped by the watching group putting on waterproofs, or could it have been a cross?

Ian Schoolar

Observations by Neville Crowther

The wind was a problem for spotting our anticipated haul of butterflies, but we did see migrant moths, silver Y's *Autographa gamma* and day-flying yellowshells. The hummocks of yellow meadow ants *Lasius flavus* were common throughout the grassland bedecked with thyme *Thymus polytrichus* and rockrose.

The odd wheatear *Oenanthe oenanthe* perched nearby and as we climbed towards the lighthouse meadow pipits were sent swirling ahead by the breeze. The large puffball *Calvatia utriformis* was identified by Kevin, the brown ones being the 'shells' of last year and the white fleshy ones this year's crop. Considerable time was expended perched on cliff-top ledges watching the sea stacks beneath us against a backdrop of 'white horses' with strings of gannets *Morus bassanus* battling to windward.

The return to the café next to the carpark was accomplished in record time. We arrived, dripping, before the closure time. The coffee and cakes were excellent.

Little Boghead

11th June 2014

Leader: Tom Delaney

On a sunny afternoon, the group set out to Little Boghead on the outskirts of Bathgate. The day was in two sessions, one around lunchtime and one in the evening. This area is made up of mixed woodland, grassland and ponds with a remarkable array of wildlife for being on the edge of an urban area with a housing project encroaching onto it. It used to be an estate, but has since been used by the public for events and is now a nature reserve. The majority of woodland is made up of willows, especially goat willow *Salix caprea*, with scattered hawthorn *Crataegus monogyna*, broom *Cytisus scoparia* and gorse *Ulex europaeus*. There was an aim to find water rail *Rallus aquaticus*, so some of us headed into the reserve excited at the chance of hearing or even seeing this elusive bird. When arriving at the main pond, we saw many damselflies including large red *Pyrrosoma nymphula* and many blues which were difficult to identify when darting about the edge of the pond, there being a number of blue damselfly species present in the area. Some people played a water rail call from an app on their mobile phones, but none called back. However it is impressive that there is technology that allows you even a chance to hear a bird through them responding to the call.

We encountered many open water spaces, surrounded by yellow flag *Iris pseudacorus* and bottle sedge *Carex rostrata* at the smaller ponds, and at the main pond, a large stand of guelder rose *Viburnum opulus* which typically lives in and around open water. Further on, where the land became bog-like, many grasses including cock's foot *Dactylis glomerata* and Yorkshire fog *Holcus lanatus*, and the attractive melancholy thistle *Cirsium heterophyllum* were seen. In amongst this flew a large variety of insect life, which included the common white wave *Cabera pusaria* and latticed heath *Chiasmia clathrata* moths. The former could be recognised by a light brown zigzag

pattern on the wings. Many laccwings of a blue-green colour were also flying about and they were just as beautiful as the damselflies with very iridescent wings.

In the evening, another session was run, where only a few people joined, but one person present was the ranger for Little Boghead, Jim Easton. He told us of his sightings of water rail, including one which ran right past him on the wooden boardwalks that surround the ponds at Little Boghead. Jim showed us a chick that he had unfortunately found dead at the site, but it did show that the species has been having some success in this area, a positive in the face of some of the problems wildlife can have in and around urban areas. At the pond nearest the car park, he tried playing the call as was done earlier using mobile phones. This time, we had success hearing a call sounding like a pig squeal, which is a typical call of the bird. He mentioned at the main pond that moorhens *Gallinula chloropus* have driven the rails away from that pond to surrounding ones through competition, which is probably the reason for not having heard them earlier in the day. Another creature mentioned by the ranger was the water vole *Arvicola terrestris* which has been spotted on the burn running through the site. We watched out for this small mammal, but had no such luck. Instead, reed bunting *Emberiza schoeniclus* and whitethroat *Sylvia communis* were spotted. The latter bird was a female, which saw us as no threat, so we were lucky to get some very good views of it. It ended a great day with our own exploration of the site in the early session and hearing from someone who works at the reserve, in the evening.

Ptolemy McKinnon

Traprain Law

14th June 2014

Leaders: Katherine White and Laura Edwards

A group of 19 members gathered in the sunshine at the foot of Traprain Law in East Lothian ready to explore this volcanic plug that rises to a height of 220m above sea level. Traprain Law is designated as a Site of Special Scientific Interest (SSSI) for its geological, physio-graphical and botanical interests.

The walk started with the group heading along the lower path at the base of the Law, towards the rich calcareous grassland of the south facing slopes, where members proceeded to explore as they worked their way gradually upwards. Ground nesting skylarks *Alanda arvensis* and meadow pipits *Anthus pratensis* provided the background soundtrack and the botanical highlights of these base rich slopes included meadow oat-grass *Avenula pratensis*, crested hair-grass *Koeleria macrantha*, prickly sedge *Carex muricata* ssp. *pairae*, field madder *Sherardia arvensis*, orpine *Sedum telephium* and spring vetch *Vicia lathyroides*. The warm summer's day meant that there were many invertebrates seen on the wing and feeding amongst the flowering plants. A total of ten butterfly and seven bumblebee species were spotted with a variety of other beetles, hoverflies and spider species also recorded during the day.

The group gathered at the hill fort at the top of the Law for lunch and were treated to spectacular views of the surrounding East Lothian countryside and were also accompanied by the Exmoor Ponies which graze the site as part of the East Lothian Council Management Plan.

After lunch, the group explored the top of the Law, walking to the north eastern end where members could see the disused quarry from above and were treated to a noisy peregrine falcon *Falco peregrinus* making its presence known.

A lovely day in the sunshine on this species rich site culminated in the group descending the main path back to the car park, where a smaller contingent of members then walked into the disused quarry. Time was spent around the areas of standing water within the quarry site that were occupied by palmate newts *Lissotriton helveticus*, easily visible through the water. The disused quarry also provided fantastic botanical interest with species recorded including silver hair-grass *Aira caryophyllea*, common spotted orchid *Dactylorhiza fuchsii*, northern marsh orchid *Dactylorhiza purpurella*, bloody crane's-bill *Geranium sanguineum*, meadow saxifrage *Saxifraga granulata*,

hare's-foot clover *Trifolium arvense*, knotted clover *Trifolium striatum*, great mullein *Verbascum thapsus* and rock stonecrop *Sedum forsterianum*.

Katherine White and Laura Edwards

Mavisbank

18th June 2014

Leader: Tom Delaney

On perhaps the warmest day of 2014, ten members turned up for this afternoon walk which proved to be very much a repeat of our visit exactly a year before. Three members, and then a fourth, who had travelled by bus, had a bit of an adventure reaching the meeting point. Nearby, a relatively new arrival in the Lothians, a tree bumblebee *Bombus hypnorum* was spotted on cotoneaster by the war memorial. Later we were able to view the decaying house of Mavisbank from behind a fence. It is proposed that there should be partial restoration of this Palladian style house and its grounds for use as a community park.

Sarah-Louise pointed out two 'square-stalked' plants, square-stalked St John's-wort *Hypericum tetrapterum* and square-stalked willowherb *Epilobium tetragonum* ^{*See Note below}. She was also attracted by various insects, including an impressive aphid gall *Adelges laricis* on Norway spruce *Picea abies*, while on a badly insect-damaged common figwort *Scrophularia nodosa* she found two figwort weevils *Cionus scrophulariae*. Neville provided a fascinating account of the life cycle of this weevil.

Flowering in and around the canal Patrick noted New Zealand pigmyweed *Crassula helmsii*, yellow water-lily *Nuphar lutea*, common spike-rush *Eleocharis palustris*, lesser pond-sedge *Carex acutiformis*, hairy sedge *C. hirta*, oval sedge *C. leporina*, remote sedge *C. remota*, bottle sedge *C. rostrata* and branched bur-reed *Sparganium erectum*. By the waterside a four-spotted chaser *Libellula quadrimaculata* as well as large red *Pyrhosoma nymphula* and assorted blue damselflies were darting around. At the east end of the canal was a large stand of giant horsetail *Equisetum telmateia* which may benefit from the water flowing from former mine workings.

Over the course of the afternoon seven species of bumblebee and a yellow and black 14-spot ladybird *Propylea 14-punctata* were seen. The abundance of insect encouraged Neville to busy himself photographing insects such as a scorpion fly, a sawfly and a snout moth.

It was another perfect afternoon at Mavisbank.

Tom Delaney, Neville Crowther, Patrick Chaney and Sarah-Louise Davies

Note: *Epilobium tetragonum*

Epilobium tetragonum is very rare in the Lothians, but quite closely related to short-fruited willowherb *E. obscurum* which is widespread, and may also have a square stem. They key out together in Stace and are most easily distinguished by the length of the capsules – 4-6 cm for *E. obscurum* and 6.5-8cm or more for *E. tetragonum*. Before the publication of the Flora of the Lothians, Douglas McKean checked all *E. tetragonum* specimens in the Edinburgh Royal Botanic Gardens and discovered they were all mis-identified.

Jackie Muscott

Glencorse

21st June 2014

Leader: Fraser Donachie

As it was my first excursion that I was to lead, I decided that the route would be uncomplicated and easier if it was a straight route starting near the Flotterstone Inn and following the road past the Glencorse Reservoir. There were only four of us who attended the excursion but the small number made the day feel more relaxed and I would like to thank David Adamson for helping me. As we walked up the road there was an abundance of watercress *Nasturtium officinale* agg. As we continued along the road past the reservoir, there were chiffchaff *Phylloscopus collybita* and

blackcaps *Sylvia atricapilla*. On two previous visits to Glencorse Reservoir I had heard a cuckoo *Cuculus canorus* but I have yet to see the bird. We then turned off the road onto a path which lead up between Bell's Hill and Harbour Hill towards Harlaw Reservoir. We only walked half way up this path before turning back but on the way up we found various sedges such as star sedge *Carex echinata* and flea sedge *C. pulicaris*. As well as this we also came across other plants such as broad-leaved cottongrass *Eriophorum latifolium*, marsh foxtail *Alopecurus geniculatus* and perennial ryegrass *Lolium perenne*. Also in one of the watery ditches on the side of the hill there were both the carnivorous plants, sundew *Drosera rotundifolia* and butterwort *Pinguicula vulgaris* that are native to the UK. As well as plants there was also a common lizard *Lacerta vivapera*, skylark *Alauda arvensis*, red grouse *Lagopus lagopus scoticus* and peregrine *Falco peregrinus*.

On the way back down the road we decided to turn off onto another path which took us past an old wildflower garden in which we found various bumblebees like the forest cuckoo *Bombus sylvestris*, heath *Bombus jonellus* and common carder *Bombus pascuorum*.

Fraser Donachie

Note: In all we saw 7 or 8 species of bumblebees, most being in the wild flower meadow and feeding on raspberry flowers. Also in the water-filled ditch was dioecious sedge, *Carex dioica*, a rarity that Vladimir had found and identified on the recce, as well as the thallose liverwort *Aneura pinguis*. This ditch, although very small, was the wildlife 'hot spot' of an enjoyable outing in which we recorded around 100 species of flowering plants.

David Adamson

Arnside Week

The extended summer excursion to North Lancashire and Cumbria took place between 23rd and 27th June with members staying independently in the Arnside area. Roger and Eunice Holmes had recently relocated to Barrow-in-Furness and were proud to show us their new patch.

Hutton Roof Crag, Cumbria Wildlife Trust

23rd June 2014

The north end of the village of Hutton Roof has groups of mature ash and oak trees gathered around the village hall where we munched a sandwich and waited for others to arrive. Lots of new broods of swallows *Hirundo rustica* twittered away on the telephone lines and several pairs of spotted flycatchers *Muscicapa striata* swooped from the trees, fences and hedgerows. The rustic nature of the Dales village could not have changed much for centuries. A pleasant reunion with Jean and Andrew Gilchrist was soon followed by Katherine's arrival from Edinburgh. Having had a reconnaissance the previous Friday, it was apparent that the easiest way onto the plateau was from the east, involving a two mile circuit of the hill. Others had expressed some doubt about whether or not to come or to be able to arrive in time, so we drove around to the start, where a path led across a pasture into a dense ash, hazel and hawthorn woodland.

As we climbed steadily the wood thinned, warblers and thrushes sang enthusiastically, speckled wood *Pararge aegeria* butterflies protected their patches of sunshine and as the limestone became more prominent calcicole plants became more apparent in the flora. On the pavement the only sites for trees to root were the grykes, they are rain enlarged vertical cracks in the horizontal strata. The scattered trees subject to wind and dessication were small and old. Yew *Taxus baccata*, juniper *Juniperus communis*, hazel *Corylus avellana* and ash *Fraxinus excelsior* were dominant, but seldom more than 1.5m. high. The herbaceous plants too, struggled for purchase and were scattered, only able to gain a hold in grykes and beneath slabs.

The rarity of the species present was the big attraction and like beachcombers we strolled across the plateau. The song of both skylarks *Alauda arvensis* and tree pipits *Anthus trivialis* accompanied as we searched for these notable plants. Two unusual ferns, both grey green in colour, were rigid buckler fern *Dryopteris submontana* and limestone oak fern *Gymnocarpium robertianum* competing

for the same footholds in the grykes. Less common were other ferns usually on walls and cliffs at lower altitudes, maidenhair *Adiantum capillus-veneris*, hart's-tongue *Asplenium scolopendrium* and wall rue *A. ruta-muraria*. Occasional grasses, restricted to mountain limestones, were blue mountain grass *Sesleria caerulea* and mountain melick *Melica nutans*. Refugees probably from previous woodland cover were wood anemone *Anemone nemorosa*, dog's mercury *Mercurialis perennis* and herb robert *Geranium robertianum* tucked into the shelter of deeper grykes. The tiny rue-leaved saxifrage *Saxifraga tridactylites* barely clung onto existence after what had been a very dry year. Dark red helleborine *Epipactis atrorubens* spikes were present in small patches, more advanced than in normal years, with a few flowers opening low down the spike. Withered fruiting spikes of early purple orchid *Orchis mascula* grew in the occasional drifts of surface soil and gravel. Mouse-ear hawkweed *Pilosella officinarum* and thyme *Thymus polytrichus* found a foothold on the domed surface of yellow meadow ant nests. We even found sheltered hollows containing wild strawberries *Fragaria vesca* in fruit. A sweet but small handful reminded us that breakfast had been long ago. On the induced descent we ran into four latecomers. We were now nine strong but still decided to press on towards our hostelrys. Three others we never found until the evening. The best laid plans.....gang aft agley.

Neville Crowther

Leighton Moss

24th June 2014

The morning was spent at nearby Leighton Moss which is famous as a Royal Society for Protection of Birds (RSPB) reserve, but is home to many interesting plants too. The large reedbeds alongside two coastal lagoons in Morecambe Bay with many footpaths, hides and facilities make it the RSPB's key reserve in north west England. Some members are particularly fond of Leighton Moss which could be visited as a day trip by train from Edinburgh, albeit a long day.

It was a day of unfulfilled bird hopes, especially not seeing any avocets *Recurvirostra avosetta*. However, the presence of a flock of Cetti's warblers *Cettia cetti* which had first bred at Leighton in 2012, and is a resident warbler, was some compensation. Reed bunting *Emberiza schoeniclus*, bullfinch *Pyrrhula pyrrhula*, chiffchaff *Phylloscopus collybita* and willow warbler *P. trochilus* were common around the reserve. On the water were gadwall *Anas strepera* amongst those species more familiar to us. The highlight of the day was watching a marsh harrier *Circus aeruginosus* hunting over a gull colony and, in turn, being mobbed by the gulls. In spite of the group we were lucky to glimpse a red deer *Cervus elaphus* and spot a vole from a hide.

Flitting around the damp reserve there were numerous damselflies including the large red *Pyrrhosoma nymphula*, common blue *Enallagma cyathigerum* and blue tailed *Ischnura elegans*. Bumblebees were represented by garden *Bombus hortorum*, tree *B. hypnorum*, carder *B. pascuorum*, early *B. pratorum* and buff-tailed *B. terrestris* or white-tailed *B. lucorum*.

The botany and accompanying wildlife had a lot of interest. We started walking through wet woodland and eventually emerged beside open water. Among of the first plants we came to were some yellow irises *Iris pseudacorus*, not uncommon, but under attack by quantities of iris sawfly *Rhadinoceraea uicants* caterpillars which I had never seen before.

Plants less common in the Lothians included hemlock water dropwort *Oenanthe crocata*, gipsywort *Lycopus europaeus* skullcap *Scutellaria galericulata* and purple loosestrife *Lythrum salicaria*, usually an introduction back home. But there were some greater rarities, pink water speedwell *Veronica catenata* which used to grow in Duddingston Loch, water dock *Rumex hydrolapathum* which is currently moving eastwards along the Union Canal and the distinctive cypress sedge *Carex pseudocyperis* which is here at the northern tip of its range, so we're unlikely to see it in the Lothians anytime soon.

There were a number of insect galls on plants, all quite common, including midge galls on both meadowsweet *Filipendula ulmaria* and germander speedwell *Veronica chamaedrys*. The former

Dasyneura ulmaria make small red pustules scattered over the leaf, while the latter *Jaapiella veronicae* form inflated bud-like pouches on the growing tips of plants. And some alders *Alnus glutinosa* had pairs of swellings in the leaf axils, looking like stitching up the midrib which are caused by a mite *Eriophyes inangulis*.

A couple of members went on an independent wander hoping to see an otter and had a fleeting sight of a woodcock *Scolopax rusticola* which they had disturbed in a wooded area.

Before long it was lunch time, and many of the party had lunch at the Visitor Centre, and a good look round there, before moving on to Gaitbarrows.

Jackie Muscott and Sarah Adamson

Gaitbarrows

24th June 2014

In the afternoon we moved to Gaitbarrows, a wooded limestone hillside. We had barely entered the woods when we came upon a patch of wood melick *Melica uniflora* soon followed by one of mountain melick *M. nutans*, and in a patch of deeper shade, herb paris *Paris quadrifolia*. Despite the name, some of the plants had 5 leaves rather than 4.

In open areas ringlet *Aphantopus hyperantus* and meadow brown *Maniola jurtina* butterflies were flying along with a few skippers, small butterflies with the odd habit of sitting with their underwings spread out and the upper wings held at 45 degrees. The blotchy appearance of the wings led to their identification as large *Ochlodes sylvanius* rather than small skippers *Thymelicus sylvestris*. All these butterflies lay their eggs on grasses on which the larvae feed. Speckled woods *Pararge aegeria* were guarding sunny patches in the woods; their larvae feed on more sheltered grasses.

We soon came to our first patch of limestone pavement which was home to a good population of dark red helleborines *Epipactis atrorubens* with large patches of lily-of-the-valley *Convallaria majalis* and some low spreading juniper *Juniperus communis* a bit further on. Various interesting ferns were growing out of the grykes including hart's-tongue *Asplenium scolopendrium*, shield ferns *Polystichum* spp, rustyback *A. ceterach*, rare in the Lothians where it is usually found on old walls with lime-rich cement, and rigid buckler *Dryopteris submontana*, absent from Scotland and rare elsewhere except in NW England.

En route to this patch of limestone we passed one of our most attractive mosses, white moss *Leucobryum glaucum* which forms distinctive pale green cushions, sometimes quite large. It grows in woodland on leaf mould and on peat, apparently preferring acid conditions; it was growing on leaf mould here, but still a surprise to see it.

Further on, signposts directed us to another pavement where the lady's slipper *Cypripedium calceolus*, Britain's most showy orchid, had been re-introduced. Most of the flowers had gone over, but one spike was in perfect condition. The orchid, a lime-lover, became almost extinct in Britain as

a result of over-collecting of both plants and flowers and damage to pavements; many garden walls in Lancaster are decorated by chunks of limestone. It took a long time to find a way of propagating new plants, but given the number at this site it looks like a success story. Nearby, in its own little roped off area was a single plant of yellow-wort *Blackstonia perfoliata*.

Other lime-loving plants included carline thistle *Carlina vulgaris*, salad burnet *Poterium sanguisorba*, dropwort *Filipendula vulgaris* and rough hawkbit *Leontodon*

hispidus, while dewberry *Rubus caesius*, a weak low bramble with weak prickles formed a woodland understorey. It is rare in Scotland as is the beautiful white field rose *Rosa arvensis* which decorated many of the paths. A somewhat trailing rose with weak thorns, it's identified by its long



**Field rose
with a long style**

stigma surrounded by a cluster of yellow anthers. It's not particularly lime-loving and is apparently common in England.

Other butterflies were found in more open areas further on – small pearl-bordered *Boloria selene* and dark-green *Argynnis aglaja* fritillaries, whose larvae feed on violets *Viola* spp, and graylings *Hipparchia semele* which I think of as the 'disappearing butterflies' because, while quite colourful in flight, they become invisible on landing. They fold their wings up and orientate themselves to the sun so that they don't cast a shadow. An emperor dragonfly *Anax imperator* distinguished by its green thorax and blue abdomen whizzed past, and a beautiful longhorn beetle *Strangalia maculata* was found feeding on a bramble bush.

A few fresh brimstone *Gonepteryx rhamni* butterflies were also seen, much earlier than usual, which suggests their parents emerged from hibernation early. The larval food plant buckthorn *Rhamnus cathartica* which was growing on and around the grykes had well-developed berries though they were still green, which suggests the plant too got off to an early start, following the mild winter. Since buckthorn is rare in the north we are unlikely to see brimstones moving into Scotland unless they develop a taste for something else!

Various warblers were singing in the woods, blackcaps *Sylvia atricapilla*, chiffchaff *Phylloscopus collybita* and willow warblers *P trochilus*. A sparrow hawk *Accipiter nisus* was seen flying over, and the harsh call of a jay *Garrulus glandarius* was heard. There were even a few fungi to be seen – choke *Epichloe typhina* on the stems of false brome *Brachypodium sylvaticum*, and a chunk of green wood infected by a green wood cup fungus *Chlorosplenium* sp. So a wide variety of flora and fauna were seen on a lovely sunny afternoon.

Jackie Muscott

Sandscale Haws

25th June 2014

It was a great pleasure to welcome 15 members of the Edinburgh Nats to my home town of Barrow-in-Furness. The area boasts a wealth of natural history and several nature reserves, as well as fine coastal scenery. Sandscale Haws is one of two reserves containing superb sand dunes, and our visit there concentrated on this habitat. Unfortunately the very dry hot summer here paused for breath on the day, and in contrast to the forecast, the weather deteriorated during the visit. As we walked through the dunes, the soaking wet ankle length grasses only made matters worse.

Early in the walk, we were very lucky to spot a natterjack toad *Epidalea calamita*, with its distinctive stripe down its back. The Barrow area boasts some of the highest populations of this nationally rare dune slack amphibian.

This year, there has been an exceptional display of pyramidal orchids *Anacamptis pyramidalis* at Sandscale, and many hundreds were enjoyed at the peak of their flowering period. A subsequent count measured several thousand flowering spikes in this part of the reserve.

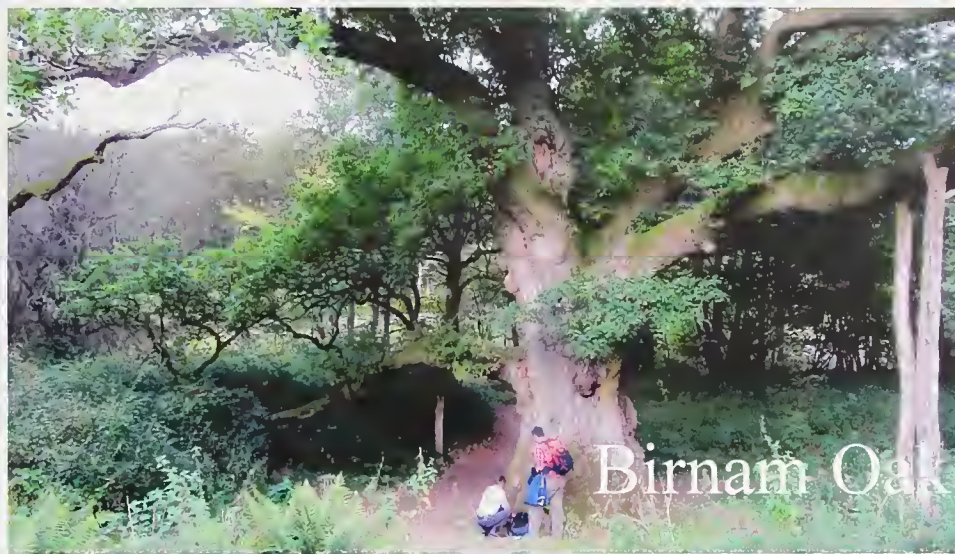
Several other specialities of the site were soon discovered including Portland spurge *Euphorbia portlandica*, sea spurge *Euphorbia paralias*, sea holly *Eryngium maritimum* and large quantities of creeping willow *Salix repens*.

We stopped for lunch on a low ridge close to a large dune slack with a wealth of unusual plants. There was a healthy population of variegated horsetail *Equisetum variegatum*, complete with sporing heads, also several fine marsh helleborine *Epipactis palustris* already in flower. The botanists enjoyed seeing good specimens of two centaury species, *Centaurea erythraea* and *C. littorale*, but were just a few days too early to see the open flowers of grass of Parnassus *Parnassia palustris*.

While we were having lunch, David found several other helleborines nearby, that were not fully open. Our initial thoughts, confirmed by a visit of expert local botanists a week later, were green flowered helleborine *Epipactis phyllanthos*. They are characterised by their drooping flower stems, barely open flowers and pale petals. This species does not appear every year, but like the pyramidal



Arbroath Cliffs



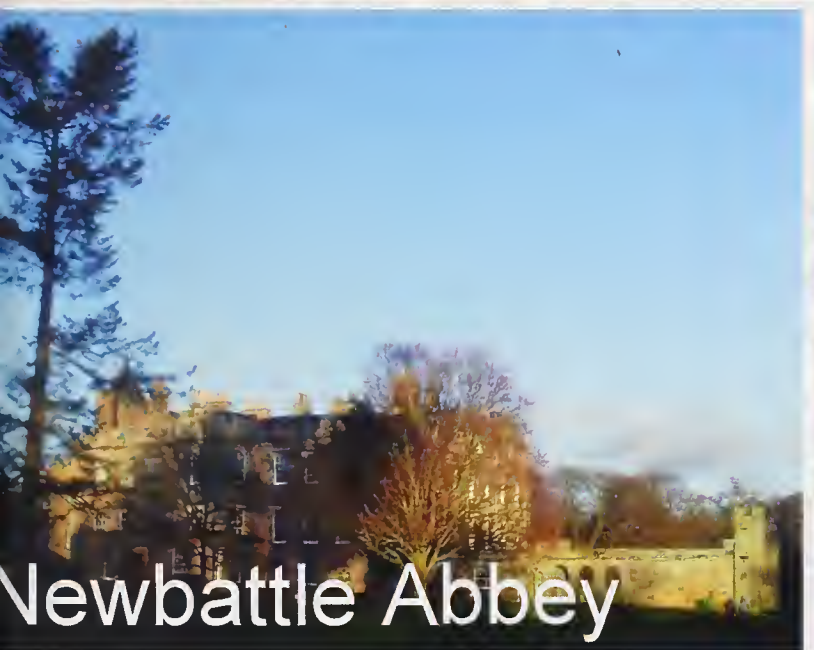
Birnam Oak



Coulston
Water



Leaderfoot



Newbattle Abbey



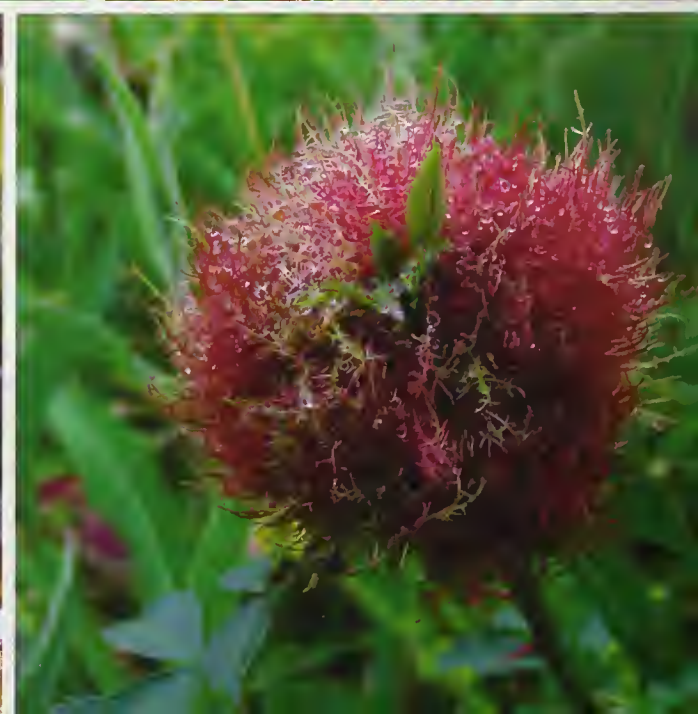
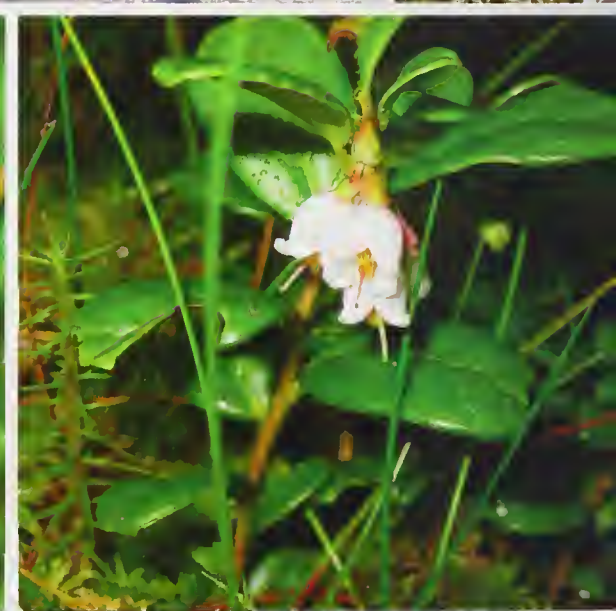
Hutton Roof

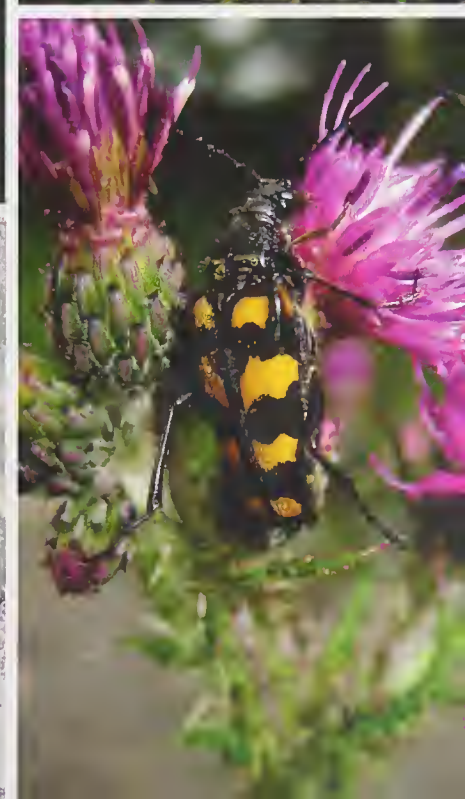
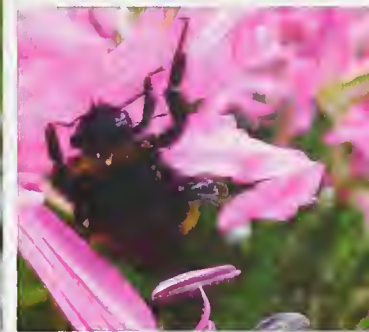
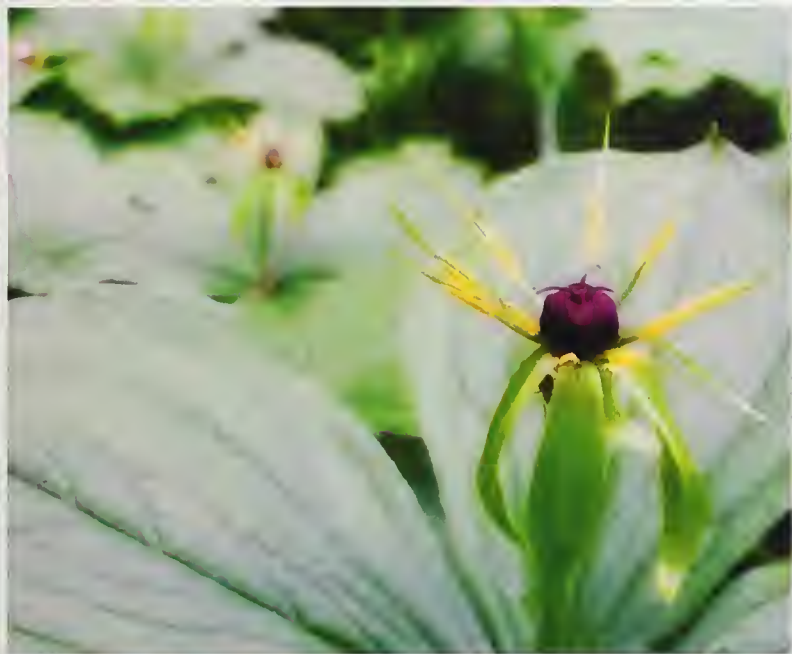


Ormiston



Harehope Forest







River Tyne



On Traprain Law

orchids, they have had a good year.

Unfortunately, we were too early to see the large population of round leaved wintergreen *Pyrola rotundifolia* ssp *maritima*. This subspecies is locally abundant in the dune slacks at Sandscale, and produces a stunning show in summer and into autumn. Nearby, under some willow trees, we found several spikes of the taller dune helleborine *Epipactis dunensis* with its pale lilac-coloured flowers. Due to the deteriorating conditions, the walk finished earlier than expected, and a small group went on to visit Biggar Bank on the nearby island of Walney. The main purpose was to see the famous local variety 'Walney Geranium' *Geranium sanguineum* var *striatum*, taking its name from the island where the only known native population of this variety is found. It also has had a particularly good year, and its pale pink flowers with red veins contrasted with the masses of 'ordinary' bloody cranesbill *Geranium sanguineum* growing with it. Some butterflies were also flying there, including large skipper *Ochlodes sylvanus*, small tortoiseshell *Aglais urticae* and red admiral *Vanessa atalanta*. Jackie found caterpillars of the cinnabar moth *Tyria jacobaeae* along with a fresh adult moth.

We were told that it had been dry on Walney all day, which was not well received. It did demonstrate how variable the weather can be within the geographically diverse Borough of Barrow. Roger Holmes

Latterbarrow, Nichol's Moss and Foulshaws

26th June 2014

Leader: Roger Holme

After Wednesday's rain some of us paid heed to the weather forecast and arrived at Latterbarrow clad for a damp day. This proved unnecessary as the day was fine in every way. Roger lead us round the small limestone meadow of Latterbarrow and took pleasure in pointing out its botanical highlights. Of the six orchid species only the common twayblade *Neottia ovalis* was in full flower, but there were many other uncommon plants to admire. The reserve has an abundance of salad burnet *Poterium sanguisorba* and good populations of small scabious *Scabiosa columbaria* and common gromwell *Lithospermum officinale*. Lyn discovered a plant new to the reserve, and to most of us. This rarity was long-stalked cranesbill *Geranium columbinum* which Roger managed to find in another meadow later in the day.

After an hour at Latterbarrow we trailed through some limestone woodland and fields to reach a very different habitat. Nichols Moss is a vast raised bog, home to many acid-loving plants. The path into the moss soon petered out, leaving us to wander among yellow swathes of bog asphodel *Narthecium ossifragum*. Frequent among the leafless heather plants was bog rosemary *Andromeda polifolia*. It has slender dull green leaves, and often appeared to be accompanied by purple leaves of cowberry. However, the absence of normal cowberry leaves was puzzling; closer examination showed that the purple leaves were those of the andromeda, deformed by a fungus called *Exobasidium karstenii*.

Round-leaved sundew *Drosera rotundifolia* was common and was usually found growing on sphagnum moss. There were other sundew plants with distinctly narrow leaves, sometimes growing on the peat itself, and which I took to be the oblong-leaved sundew *Drosera intermedia*. A final rarity which was thriving in Nichols Moss was white beak sedge *Rhynchospora alba*.

Nichols Moss was also a good site for colourful insects. At the entrance we had been welcomed by a golden-ringed dragonfly *Cordulegaster boltonii*. After obtaining good views of a rather surprised common lizard *Zootoca vivipera* and a green tiger beetle *Cicindela campestris* some of us managed to find and photograph the camera-shy purple-bordered gold moth *Idaea muricata*. We saw several large heath butterflies *Coenonympha tullia*, the same species that we had found at Auchencorth Moss on Michael Jones' outing in early July 2013; we also found at least one other dragonfly species which, from a photograph, looks like a black darter *Sympetrum danae*.

Our departure from the moss was delayed by a toad and some invertebrates. While searching for a

nursery web spider *Pisaura mirabilis* that she had seen earlier, Helen had found the nymph of a hairy shieldbug *Dolycoris baccarum* feeding on a dead large skipper butterfly *Ochlodes sylvanus*. The shieldbug retreated with its victim when we pushed aside the grass for a better view. Most sympathies were with the butterfly. Among many insects feeding on marsh thistle *Cirsium palustre* were a small pearl bordered fritillary *Boloria selene* and a queen forest cuckoo bumblebee *Bombus sylvestris*. Finally, Neville lifted a sheet of rusting metal to reveal a large common toad, *Bufo bufo*. Roger capped an excellent outing by finding an adder *Vipera berus* sunning itself on the verge of the busy A590, but it had vanished by the time that most of us responded to his call of 'adder'. After ice creams at a filling station and a short walk to the cars Roger returned to Barrow and we drove to our final destination of the day, Foulshaws Moss.

Foulshaws resembles Balerno's Red Moss in at least two ways: both are raised bogs with boardwalk access. However, Foulshaws is much larger, and there is no need to search for the natural history interest. Two common lizards were posing for photographs on the boardwalk. Cuckoos *Cuculus canorus* landed on the dead trees where Neville and Tom had seen them on their previous visit. Odonata abounded: an emperor dragonfly *Anax imperator* chased four-spotted chasers *Libellula quadrimaculata*, and damselflies flitted here and there, oblivious to the darting movements of their larger relatives. The yellow and white caterpillars of the mullein moth *Cucullia verbasci* were putting on weight as the expense of the leaves and stems of figwort *Scrophularia nodosa*. The antennae and head of an apparent dead burnet moth hiding behind the inflorescence of a marsh thistle turned out to be our second yellow and black longhorn beetle of the week, *Leptura quadrifasciata*.

As well as the notable plants of Nichols Moss, particularly the bog rosemary, round-leaved sundew, bog asphodel and white beak sedge, Foulshaws has an abundance of cranberry *Vaccinium oxycoccus*. Its berries were more obvious than the weak stems and small leaves when trailing over the sphagnum hummocks beside the boardwalk. Jackie also found celery-leaved buttercup *Ranunculus scleratus*, and a plant more familiar in gardens, creeping Jenny *Lysimachia nummularia*.

Thanks to Roger, Neville and Tom for planning and leading on a memorable day that exceeded all expectations.

David Adamson

River Gilpin and dam road at Lake Thirlmere

27th June 2014

Today was the day that sun was required to see our target species. The tiny location was a short section of drain with levees in the River Gilpin catchment close by a water treatment outfall and crossed by a small road bridge. Almost immediately the five of us spotted the beautiful demoiselle *Calopteryx virgo* and as a bonus a banded demoiselle *C splendens*. There were males of both species and female beautiful demoiselles. Water crowfoot *Ranunculus* sp was growing in the area where the demoiselles were flying and blue water-speedwell *Veronica anagallis-aquatica* further along the drain. A short distance away David spotted an eel *Anguilla anguilla*, the 4 spot chaser *Libellula quadrimaculata*, large red *Pyrrhosoma nymphula* and blue tailed *Ischnura elegans* damselflies. Neville and Sue arrived a little later but missed the banded demoiselle. We were enchanted for an hour or so. A couple passing in their car were pressed to come and have a look. While we watched, a young farmer plied up and down the road with his muck spreader. Eventually, curiosity got the better of him and he stopped to ask what was so interesting. He was duly impressed. It was suggested that the area should have some recognition or protection but the wise farmer commented that, generally, getting recognition would require some kind of land flooding which would not suit his livestock. It may not suit the demoiselles either. However, I think he may keep an eye on his fairy-like charges.

Our journey home followed a route to include a childhood holiday destination and was instantly

recognised. On the dam road at the north end of Lake Thirlmere we were overlooked by Raven Crag where a peregrine *Falco peregrinus* was calling. A look around the small car park revealed many notable organisms including blaeberry bumblebee *Bombus monticola*, parsley fern *Cryptogramma crispa*, pale sedge *Carex pallescens*, betony *Betonica officinalis* and a golden-ringed dragonfly *Cordulegaster boltonii*. There was a mystery animal rustling through the undergrowth. A short walk took us past the Great How and along to High Bridge End Farm which is very little changed and from there you can look across to the Vale of St John's and Helvellyn. Lake Thirlmere was created from the large water catchments of the area and in 1894 began to supply Manchester with drinking water. The lake does not suffer the pressure of tourism exerted on the Windermere and Ambleside area, however the feet of walkers and tyres of mountain bikes do cause erosion.

Sarah Adamson

Barkbooth Lot, Cumbria Wildlife Trust

June 27th 2014

Most people were on the motorways homeward bound by lunch time when four survivors arrived at Barkbooth Lot in the wooded hills above the Lyth Valley. Three habitats were represented in the reserve: broad-leaved woodland dominated by oak, rough grassland with scrub and bracken and a recent addition of herb-rich meadow devoted to preserving high brown fritillaries *Argynnis adippe*. Throughout the site there are ponds where many dragonfly sightings can be made.

The cool shady woodland echoed to the sounds of green *Picus viridis* and great spotted woodpeckers *Dendrocopos major*, nuthatches *Sitta europaeas*, chiffchaff *Phylloscopus collybita* and thrushes. Jays *Garrulus glandarius* and a tawny owl *Strix aluco* calling were unexpected. The swathes of fruiting bluebell stalks showed us what a sight we would have seen a couple of months ago. A large pond in the woods had emperors *Anax imperator* and four spotted chasers *Libellula quadrimaculata* dominating the Odonata population, with large red *Pyrrhosoma nymphula*, common blue *Enallagma cyathigerum* and emerald *Lestes sponsa* damselflies much more sedentary in the surrounding rushes and floating vegetation. Katherine found lemon scented fern *Oreopteris limbosperma* amongst the mainly ericaceous field layer, and several day-flying moths were identified, including straw dot *Rivula sericealis*, yellow shell *Camptogramma bilineata*, brown china-marks *Elophila nymphaeata* and other micromoths.

Emerging into the sunshine of the open moorland each patch of scrub had the song of whitethroats *Sylvia communis*, blackcaps *S. atricapilla* or willow warbler *Phylloscopus trochilus*. The rocky hummocks, where soil was too shallow for bracken *Pteridium aquilinum*, had herb rich acid grassland with tormentil *Potentilla erecta*, heath bedstraw *Galium saxatile*, sheep's sorrel *Rumex acetosella* and wavy hair *Deschampsia flexuosa* and heath *Danthonia decumbens* grasses. Another pond revealed a teneral, newly emerged, common darter *Sympetrum striolatum* amongst the many emerald damselflies.

By mid afternoon it was time for off and as the adrenalin waned I slumbered along the motorway as Sue drove home.

Neville Crowther

Revisiting sites

28th and 29th June 2014

On Saturday afternoon I revisited Roanhead. What a different place it was, and not just weather wise. Our lunch spot was covered in knotted pearlwort *Sagina nodosa* flowers, several hundred, just growing out of the sand amongst the *Equisetum variegatum*, with little else of the plant showing! I knew it was there. The rain must have caused their sudden appearance. I went to look closely at the *Epipactis* found nearby. Some plants were already going over, but one showed signs of the petals opening. Inside were yellow/green flower parts, together with the sharply drooping flower heads. Also, I went to look at the two plants under the trees where it was too wet for most folks. They were

fully open with the lilac flower parts clearly showing that they are *Epipactis dunensis*, as I had suspected.

On Sunday we went back to Nichols Moss. We found five of the purple bordered gold moths *Idaea muricata*, as well as some others. There were several of the bog bush crickets *Metrioptera brachyptera* in an area not visited by the Nats, and finally a fresh high brown fritillary *Argynnis adippe* on the thistles near the gate.

Roger Holmes

Local Walks

A few of us who were based at Silverdale did some local walks.

One of these was across a calcareous meadow close to the hotel and plants seen included dropwort *Filipendula vulgaris*, kidney vetch *Anthyllis vulneraria*, rock-rose *Helianthemum nummularium*, salad burnet *Poterium sanguisorba* ssp. *sanguisorba*, quaking grass *Briza media* and crested hair-grass *Koeleria macrantha*. Farther on, our way led above cliffs and other interesting plants were added to our list - betony *Betonica officinalis*, golden rod *Solidago virgaurea*, field scabious *Knautia arvensis* and meadow oat-grass *Avenula pratensis*. The track then turned inland and there, as a final treat, was some splendid blue sow-thistle *Cicerbita macrophylla*.

On two evenings, three of us walked along the nearby shore, a saltmarsh, where we were pleased to see a number of common plants of this habitat including saltmarsh rush *Juncus gerardii*, sea plantain *Plantago maritima*, sea arrowgrass *Triglochin maritima*, sea milkwort *Glaux maritima* and sea aster *Aster tripolium*. We were delighted to find, growing in fair quantity and flowering, a plant with which we were much less familiar. This was hard grass *Parapholis strigosa* which has short stiff stems and is difficult to detect when not in flower and which one of us had seen only twice before.



**Sea hard grass
in full flower**

There were two walks on different days westwards along the estuary of the River Kent from Arnside, initially to see whether we could find the maidenhair fern *Adiantum capillus-veneris* which we had seen on a previous visit. We found this and many other interesting plants, including parsley and hemlock water dropwort *Oenanthe lachenelii* and *O. crocata*, false fox sedge *Carex otrubae*, and distant sedge *C. distans* and dwarf eelgrass *Zostera noltei*, plus greater meadow-rue *Thalictrum aquilegifolium* and deadly nightshade *Atropa belladonna* a bit further on.

There is a tidal bore on the River Kent and we were fortunate to see the tide sweeping in very rapidly and disturbing the waders which were feeding on the mud and sand, including two little egrets *Egretta garzetta* on the far bank, not a common sight north of the border, while a heron *Ardea cinerea* continued fishing near the shore.

Jean Murray, Jackie Muscott, Mary Clarkson

Red Moss of Balerno and Bavelaw

2nd July 2014

Leader: Patrick Chaney

Five of us met in the Threipmuir car park on an overcast windy evening with a threat, and forecast, of rain. We planned to visit the Red Moss of Balerno, Bavelaw Marsh and Redford Wood, weather permitting.

The Red Moss was once part of the larger Balerno Common which was broken up following 18th century acts of enclosure. It was originally the bed of a shallow loch that existed in the early ice age and is composed of deep layers of peat up to 6 metres deep that have accumulated over thousands of years. Its domed top is covered by heather *Calluna vulgaris*, common cottongrass, *Eriophorum*

angustifolium and hare's-tail cottongrass *E. vaginatum*, bell heather *Erica cinerea*, cross-leaved heath, *E. tetralix* and several species of *Sphagnum* as well as several species of lichen. Over time, the sphagnum has built up and it now acts like a sponge raising the water level at the centre of the dome considerably higher than the nearby Bavelaw Reservoir. The drier margins are fringed with trees, mostly birch, willows and pine. It is the only lowland raised bog within the boundary of the City of Edinburgh: a small relic of what was once an extensive area of peatland most of which has now been lost or damaged by peat extraction for fuel and horticultural use, as well as reclamation for agriculture and forestry. In the 18th century there was substantial development in the Balerno area, with many new flax, snuff and paper mills springing up around the Water of Leith. This all added to extra pressure on the local peatland. The general loss of peatland is ecologically significant since peat is a great carbon store, preventing its release as a greenhouse gas. These wet, acidic conditions also preserve plant material, which provides an historical record of vegetation changes since the last ice age.

We walked along a boardwalk originally constructed by the Scottish Wildlife Trust (SWT) in 1993, and partly replaced and repaired in 2010. There are many useful and informative displays along the boardwalk, well worth pausing to read. The southern part leads past birch and willow thickets where we found some fungi, tawny grisette *Amanita fulva* and yellow swamp russula *Russula claroflava*. At the west end of the reserve, a pond-dipping platform has been built. Here one may see dragonflies and damselflies as well as breeding newts, frogs and toads, all in the appropriate season.

The bog is dotted with shallow depressions known as lint holes. These were originally dug to soak flax in the soft acidic water to make it pliable before being spun into linen. Of course this practice no longer continues but the remaining depressions are wetter than the surrounding area and contain some of the more interesting vegetation, e.g. cranberry *Vaccinium oxycoccos*, *Erica* species, *Sphagnum* and, in great abundance when we were there, round-leaved sundew *Drosera rotundifolia*. These species once covered most of the raised bog but heather is now the dominant species due to the drier conditions.

Red Moss is continually under threat from invading birch and pine which, if not cleared away at regular intervals, will gradually take over the area and change it from bog to woodland. SWT aims to prevent the peat bog drying out by removing trees and damming ditches. Much mature birch and pine has been removed from the majority of the reserve, particularly within the main dome, but more regeneration removal is still required. In addition, more extended dams will allow sphagnum to return to the ditches.

We moved on to Bavelaw Marsh which is also a site of special scientific interest (SSSI) mainly because of its importance for wintering birds, particularly whooper swans *Cygnus cygnus*. We spent some time in the Robin Aitken bird hide watching a family of mute swans *Cygnus olor* and other wildfowl.

In Redford Wood we found a species of bramble that we failed to identify, resembling dewberry, *Rubus caesius*.

The rain kept off and we had a very enjoyable evening with some splendid panoramic views of the Pentlands along the southern skyline.

Patrick Chaney

Aberlady Bay, Local Nature Reserve with Butterfly Conservation

5th July 2014

Leaders: Neville Crowther and Barry Prater

At least 23 enthusiasts arrived at the timber bridge to begin the walk. We were delighted to be joined by Barry Prater who is highly respected for his work on moths and butterfly conservation in the Scottish Borders. Also welcome was Abbie Marland also known for her wide knowledge of natural history in East Lothian. Although billed as a butterfly excursion the weather was not

encouraging, with mist and drizzle. It looked as though plants were going to be the mainstay of our visit which was a fortunate option with Aberlady's calciferous sandy soil, saltmarsh and freshwater, all with a rich and varied flora.

The saltmarsh south of the bridge contained long-bracted sedge *Carex extensa*, distant sedge *C. distans*, saltmarsh rush *Juncus gerardii* and the strange little hard grass *Parapholis strigosa*, invisible in the morning but revealed (as much as it ever does) when the sun came out. North of the bridge sea blite *Suaeda maritima* and glasswort *Salicornia sp.* were just coming up.

By mid-morning, although the grassland was still very wet, the sun gradually penetrated the mist and we began to see, often hidden in the vegetation, day flying moths, latticed heath *Chiasmia clathrata* and yellowshell *Camptogramma bilineata* plus the grassland butterflies, ringlet *Aphantopus hyperantus* and meadow brown *Maniola jurtina*. The ragwort growing in this area was suffering badly from the attention of the striking black and yellow caterpillars of cinnabar moths *Tyria jacobaeae*. The toxins made by the plant are eaten and retained by both larvae and adults as a deterrent to predation. The red and black warning colouration of both caterpillars and adults is used by many organisms.

Soon we came upon a patch of white bryony *Bryonia dioica* sprawling over the surrounding vegetation. It had the large attractive flowers of the male plant, so there was no chance of the bright red berries of autumn. Further on we took a slight diversion through a damp grassland where we were rewarded by both beauty and diversity. The scarce bog pimpernel *Anagallis tenella* with pale pink flowers, various orchids, notably twayblade *Neottia ovata* and early marsh *Dactylorhiza incarnata*, marjoram *Origanum vulgare* and the attractive grasses yellow oat *Trisetum flavescens* and quaking grass *Briza media* were a compelling mix.

Two species of burnet moth, six spot *Zygaena filipendulae* and narrow bordered five spot *Z. lonicerae*, were both present in this flower rich area. Separating the adults was less easy than distinguishing the many spindle-like cocoons found clasping grass stems. The former were lemon-yellow and the latter ivory white. The larval food plants are respectively birdsfoot trefoil *Lotus corniculatus* and meadow vetchling *Lathyrus pratensis*, although both adults seemed to be keenly nectaring on purple-blue flowers such as thistles *Cirsium* & *Carduus* spp, knapweed *Centaurea nigra* and viper's bugloss *Echium vulgare*. Cowslips *Primula veris* and goatsbeard *Tragopogon pratensis* in seed were scattered about. Jack-go-to-bed-at-noon is the latter's alternate name after the flowers' habit of closing early in the day.

The path led us to the Mire Loch through dense ranks of sea buckthorn *Hippophae rhamnoides*, these shrubs planted misguidedly to stabilise the dunes. The loch was home to a family of little grebes *Tachybaptus ruficollis* and many mallards *Anas platyrhynchos* upending and looking like sail boats. The extensive freshwater marsh beyond boasted marsh woundwort *Stachys palustris*, ragged robin *Silene flos-cuculi*, bogbean *Menyanthes trifoliata* and ranks of grey clubrush *Schoenoplectus tabernaemontani*.



Nearby several moths were being netted and identified, the pretty yellow brimstone *Opisthograptis luteolata* near to hawthorns, its larval food plant. A single garden tiger moth *Arctia caja* deep in grassy vegetation showed us its flash reaction to peril, by suddenly displaying its bright orange underwings. Common *Epirrhoe alternata* and garden carpet *Xanthorhoe fluctuata* moths were added to our list, and with more difficulty a grey tortrix moth *Cnephasia stephensiana*, confirmed by Mark Young. A fan footed wave *Idaea biselata* was confirmed by Barry after some thought.

Abbie led us to an extensive area of tall grass and ruderals where she had discovered small skipper *Thymelicus sylvestris* last year, a first for the Lothians and the dark green fritillary *Argynnis aglaja* also was to be found. We found both species in some numbers, particularly nectaring on thistles. It

was astonishing to discover that the numbers of small skippers seen probably exceeded a hundred and 10 years ago had never been found in Scotland. We chose to have lunch on a grassy bank near this site, although half the party continued quartering the area, discovering butterflies including small coppers *Lycaena phlaeas*, small heaths *Coenonympha pamphilus*, common blues *Polyommatus icarus*, small tortoiseshell *Aglais urticae* and countless more ringlets and meadow browns. A batch of peacock *A. io* caterpillars were found on nettles, easily recognised by their black colour with small white dots, spiny projections all over and orange prolegs. A lone stately pyramidal orchid *Anacamptis pyramidalis* was seen by all.

Rob Wallace meanwhile had been steadily netting an impressive collection of grassland insects, which he identified whilst lunching. Many were *Hemipteran* bugs belonging to the families of damsel bugs *Nabidae* and capsid bugs *Miridae*. Several *Homopteran* froghoppers *Aphrophoridae*, were also named. The other less well known species were beetles, including three soldier beetles of the *Cantharidae*, a burying beetle of the *Silphidae*, a darkling beetle of the *Tenebrionidae* and a suspected larval tortoise beetle *Cassida* sp.

David Adamson stood for lunch scanning for bumblebees. Afterwards with the sun shining strongly we searched widely for scarce plants and further insects. We visited good stands of salad burnet *Poterium sanguisorba*, frog orchid *Coeloglossum viride* and found an acre or more of bog pimpernel. Purple milk vetch *Astragalus danicus* appears here to be resisting the national decline. Rough *Leontodon hispidus* and lesser hawkbit *L. saxatilis* were assessed as widespread. On the way back we stopped at the freshwater marsh to enjoy the flowers of greater bladderwort *Utricularia vulgaris* and of lesser water parsnip *Bernia erecta*. There were several active dragonflies which we thought were four spotted chasers. A large white *Pieris brassicae* was our last butterfly before recrossing the bridge. All in all a great day for both flowers and insects.

Neville Crowther with data from Jackie Muscott, Barry Prater and Rob Wallace.

Water of Leith Circular

9th July 2014

Leader: Lynn Youngs

A glorious sunny evening saw seven members commence a Water of Leith circular walk from the Malleny Garden car park near Balerno. Bird sightings got off to a promising start with wren *Troglodytes troglodytes*, blackbird *Turdus merula* and bullfinches *Pyrrhula pyrrhula* spotted on the trees close to the car park area. On the exit from the car park there was a very attractive display of pink purslane *Claytonia sibirica*.

The route headed along a track to Currie and numerous flowering plants were found notably sanicle *Sanicula europaea*, Pyrenean valerian *Valeriana pyrenaica*, meadow vetchling *Lathyrus pratensis*, field forget-me-not *Myosotis arvensis*, meadow buttercup *Ranunculus acris*, common spotted orchid *Dactylorhiza fuchsii*, narrow-leaved vetch *Vicia sativa* subsp. *nigra* and bush vetch *V. sepium*. From Currie we followed the Water of Leith walkway back to Balerno and this section of the walk produced meadow cranesbill *Geranium pratense*, leopardsbane *Doronicum pardalianches*, monkeyflower *Mimulus guttatus*, giant bellflower *Campanula latifolia*, perforate St. John's wort *Hypericum perforatum*, broad-leaved willowherb *Epilobium montanum* and mugwort *Artemisia vulgaris*. Great wood-rush *Luzula sylvatica* was also seen.

Notable trees seen included sessile oak *Quercus petraea*, pedunculate oak *Q. robur*, yew *Taxus baccata* and wych elm *Ulmus glabra*.

The best fungi of the evening was a superb specimen of southern bracket *Ganoderma australe* growing on a tree trunk. Sadly, no dippers were seen but we did spot a very active pair of grey wagtails *Motacilla cinerea* and chiffchaff *Phylloscopus collybita* were calling in good numbers throughout the walk. Sixteen bryophytes were identified including *Conocephalum conicum*, *Thuidium tanuariscinum*, *Pellia endiviifolia* and *Brachythecium rutabulum*. Fern species spotted included wall-rue *Asplenium ruta-muraria*, hart's-tongue *A. scolopendrium*, lady fern *Athyrium filix-*

femina and broad buckler fern *Dryopteris dilatata*. Grasses were abundant and notable species seen included hairy brome *Bromopsis ramosa*, soft brome *B. hordeaceus*, false oat-grass *Arrhenatherum elatius*, perennial ryegrass *Lolium perenne* and reed Canary-grass *Phalaris arundinacea*.

Overall a very enjoyable evening walk which I would definitely repeat in the future. Thanks to Patrick Chaney and David Freeman for their contributions to the list of species seen.

Lynn Youngs

River Tweed Walk from Manor Bridge upstream to Lyne Station

12th July 2014

Leader: Douglas McKean

About 16 people turned up which allowed us to split into 2 groups, a 'fast' group more concerned with invertebrates, birds and mammals and the 'slow' group more concerned with carefully listing the flowering plants and ferns. Jackie, as usual, very kindly offered to be the scribe for this latter group. We set off on the south side of the river in monad NT2239 and recorded 61 species.

Some grasses caused confusion for instance with *Agrostis*, bents, I am still not sure whether the dominant one by the path side was *A. canina*, *gigantea* or *stolonifera*; the larch was probably *Larix x marschlinsii*. In the river was either *Ranunculus penicillatus* ssp. *pseudofluitans* or *fluitans*, water crowfoots, and we thought that the pondweed was the curly one, *Potamogeton crispus*. Several exotics were also found: red oak *Quercus rubra*, copper beech *Fagus sylvatica purpurea*, monkey flower *Minulus guttatus*, possible balsam poplars *Populus* sp. and a hybrid birch ?*Betula x aurata*. Close to a semi fortified keep house was a wonderful fragrant small leaved lime *Tilia cordata* and an arboretum with lots of exotics, some with labels attached, for example, oriental hawthorn *Crataegus orientalis* (syn. *C. laciniata*) fide 'Stace', giant redwood *Sequoiadendron giganteum*, Keaki *Zelkova serrata*, Lawsons's cypress *Chamaecyparis lawsoniana*, a snake-bark maple *Acer rufinerve*, a north American birch *Betula alleghiensis*, a pear *Pyrus calleryana* 'Chanticlear', Korean fir *Abies koreana*, mespilus *Amelanchier canadensis* (syn. *A. lamarckii*), Himalayan birch *Betula utilis* var. *jacquemontii*, Brewer's spruce, *Picea breweriana*, Katsura *Cercidiphyllum japonicum*, Japanese cedar *Cryptomeria japonica*, and finally a mystery spiny sapling, possibly a crab apple which turned out to be pear-fruited cockspur thorn *Crataegus coccinea* from eastern North America. At the place where we had to veer away from the river up a steep path was a small group of elms with amazing ridged corky branches. Jackie says the leaves were too big for English elm *Ulmus procera* and according to Pollard's Vegetative Key the other corky branched elm is *Ulmus x hollandica* which has indeed larger leaves!

The other monad that we entered had 67 species of plant.

For animal wildlife we noted, meadow brown *Maniola jurtina* butterflies, chimney sweeper *Odezia atrata* moths, carrion crow *Corvus corone*, a mallard *Anas platyrhynchos* family including nine ducklings, goosander *Mergus merganser*, grey heron *Ardea cinerea*, wrens *Troglodytes troglodytes*, goldfinches *Carduelis carduelis* and great tits *Parus major*. We heard pheasants *Phasianus colchicus*, buzzard *Buteo buteo* and nuthatch *Sitta europaea*. A lesser black-backed gull *Larus fuscus* was eating something worryingly close to the ducklings

On the north side of the river we found where a badger *Meles meles* had dug out a bees' nest and there were still a few casualties lying around.

Douglas McKean

The Fast Group Manor to Lyne

Mike Robinson had arrived by car with his son-in-law, Dan, and grandchildren, Keiron, age 7 and Liam, nearly 10. I joined them at the start of the walk, and we moved at the pace set by the two boys, who were intent on catching bees and moths in their bug-boxes. Lyn and Sarah managed to catch up with us at lunchtime, and the seven of us made up the 'Fast Group', although that term is only relative. Liam caught a cuckoo bumblebee *Bombus sylvestris* fairly early on, and Keiron showed skill in catching small brown moths and a variety of insects all through the walk.

The enthusiasm of the youngsters made for a very enjoyable outing and we arrived back at Manor Bridge rather earlier than the main group. Some of the most notable sightings were probably made from Manor Bridge itself. A couple of inflated rafts were moving downstream and driving all the birds before them, and this provided us with good views of a sandpiper and a family of nine goosanders. Earlier we had passed a bird cherry tree covered in the untidy cobweb-like nests of an ermine moth, possibly *Yponomeuta evonymella*. Many newly-emerged adults were still around the nests. We also admired a single light emerald *Campaea margaritata* moth, at rest against a background of dark green leaves. Finally some odd growths on the leaves of an elm tree turned out to be elm fig galls *Tetraneura ulmi*.

David Adamson

Newbridge

16th July 2014

Leader: Douglas McKean

On the evening of 16 July two people including the leader set out to survey the brown field site which had been the Uniroyal Tyre Company about 20 years previously.

Plants recorded within the site and also on a recce included horse radish *Armoracia rusticana*, montbretia *Crocsmia x crocosmiifolia* and dotted loosestrife *Lysimachia punctata* at the west of the site. At the edge of a birch wood was a nice clump of wood small-reed *Calamagrostis epigejos* but the annual sweet vernal grass *Anthoxanthum aristatum* ssp. *puellii* from southern Europe which had been found in September had disappeared. Other plants which were only seen on the recce included *Senecio inaequidens* and false fox sedge *Carex otrubae*, one clump in birch wood and the other on the brown field site, also large clumps of dotted loosestrife and hairy lady's mantle *Alchemilla mollis* with *Cotoneaster ?franchetii* nearby.

In September there were hundreds of basidiomycetes among the birch trees. A large meadow interspersed with hawthorn had hundreds of eyebrights *Euphrasia nemorosa*, hardheads *Centaurea nigra* and perforate St John's wort *Hypericum perforatum*. The walk alongside the river revealed lots of leopard's bane *Doronicum pardalianches* and one clump of a garden aconite *Aconitum x stoerkianum* nearby amongst dog's mercury *Mercurialis perennis*. False brome *Brachypodium sylvaticum* was numerous here. Approaching the railway viaduct were white beam *Sorbus aria* including the hybrid *S. x thuringiaca*. *Campanula latifolia* was quite frequent at pathsides and there was some Himalayan balsam *Impatiens glandulifera*. Osier *Salix viminalis* was noted by the river and down near the swing park was giant fescue *Festuca gigantea* and martagon lily *Lilium martagon*. Whitethroats *Sylvia communis* and bullfinches *Pyrrhula pyrrhula* were observed near the viaduct. This site may be the last place in Scotland if not Britain where annual sweet vernal grass, a rare casual, has been observed and noted in Cope and Gray, Grasses of the British Isles. The meadow adjoining this site was buzzing with insects, especially butterflies when visited in late summer. I hope trees are not permitted to overwhelm this scarce habitat.

Douglas McKean

Formonthills Community Woodland, Glenrothes, Fife

19th July 2014

Leader: Jean Long

The weather did not look promising when we headed towards Fife. We entered the woodland at the Pitcairn Centre. Part of the woodland is managed by the Woodland Trust. The map from 2007 indicated that we were entering a mature wood mainly of conifers. The area was decimated by the gales in 2012 and is now a young woodland and resembles the area planted in the mid 1990's to the west of our walk. Wild flower seeds were scattered soon after the tree planting. These plants were tall, hiding young trees, but the old stumps were visible. Through the grass, mainly Yorkshire fog *Holcus lanatus*, there were ripe raspberries *Rubus idaeus*, flowering elder *Sambucus nigra* and

fruiting red-berried elder *S. racemosa* and suckering into the path aspen *Populus tremula*. In addition there were smaller plants in flower including, common spotted orchid *Dactylorhiza fuchsii*, hairy tare *Vicia hirsuta*, tufted vetch *V. cracca*, red bartsia *Odontites vernus*, corn chamomile *Anthemis arvensis* and the handsome large flowered hemp nettle *Galeopsis speciosa*. An oddity was present in the form of a clover phyllody infecting white clover *Trifolium repens*.

We went through a gate into a non-Woodland Trust area. Originally conifers were the principal trees but like the rest of the area is now a wild flower meadow, with young trees. This attractive meadow played host to twayblade *Neottia ovata* and more common spotted orchid, meadow buttercup *Ranunculus acris*, zigzag clover *Trifolium medium* and smooth lady's mantle *Alchemilla glabra*. The presence of yellow rattle *Rhinanthus minor* which is partly parasitic keeps the more vigorous grasses from swamping the meadow flowers. The cold, damp conditions did not favour butterflies but we did disturb a ringlet *Aphantopus hyperantus* and a common blue *Polyommatus icarus* butterfly, along with a large yellow underwing moth *Noctua pronuba*. The path led us to the Calder Court car park and after crossing it we entered Coul Den Nature Reserve. We descended on a hard path to a loch at the foot. Originally a reservoir, it is now in the care of Fife Council. On the water were some swans *Cygnus olor* with four noisy young and some mallards. Growing in the water were reed Canary grass *Phalaris arundinacea*, great willowherb *Epilobium hirsutum* and bulrush *Typha latifolia* with its cigar-shaped flowers.

Before calling it a day we diverted to see the Coul Burn before hurrying back to the cars. Jean had planned a super excursion. Hopefully we will return in better weather and complete it.

Alison Ramsay and Jackie Muscott

Dens Cleuch

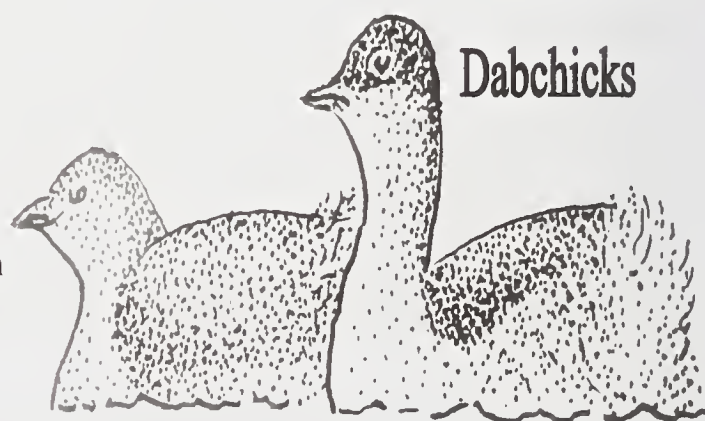
23rd July 2014

Leader: David Adamson

Dens Cleuch was last visited by the Society on a Saturday in July 2009 when we walked from Harlaw to Glencorse Reservoir, returning via the Maiden Cleuch. This Wednesday walk was less ambitious, aiming to reach Dens Cleuch by way of Black Springs, and returning by the same route. The target species were a couple of bumblebees, being the blaeberry bumblebee *Bombus monticola* and the heath bumblebee *B. jonellus*. On a preparatory walk three days previously, there had been good numbers of the former species, and a single queen of *B. jonellus*, all feeding on bell heather *Erica cinerea* on the lower slopes of Bells Hill. On the actual outing target species were almost completely forgotten, and we enjoyed many aspects of the natural history of this quiet part of the Pentlands.

On the water of Black Springs at the east end of Threipmuir Reservoir, Neville found at least three adult dabchicks *Tachybaptus ruficollis*, one with two young and two still on nests. Nearby were a tufted duck *Aythya fuligula* and half a dozen young. On birdsfoot trefoil *Lotus corniculatus* plants growing on the side of the causeway were at least five brightly-coloured *Bombus monticola* workers, as well as plenty of wasps on the creeping thistles *Cirsium arvense* and rosebay willowherb *Chamerion angustifolium*.

As we progressed along the foot of Black Hill there were many small birds. We were able to identify stonechats *Saxicola torquata* and meadow pipits *Anthus pratensis*, and in Dens Cleuch we saw at least one whinchat *S. rubetra* and some ravens *Corvus corax*. Ptolemy had hoped to find ring ousels, never having seen that species, but in this he was unsuccessful. However he did point out a couple of roe deer *Capreolus capreolus* that fled through the bracken of Black Hill. In Dens Cleuch the botanical highlights were stagshorn clubmoss *Lycopodium clavatum*, grass of



Parnassus *Parnassia palustris* and bog aspidel *Narthecium ossifragum*. Patrick was keen to find mat grass *Nardus stricta* in flower, but it appeared to be over for the season. Returning to the theme of insects, a dozen or so white butterflies were feeding together in a deer wallow, and Neville took the opportunity to photograph them. They were still there half an hour later. In all we saw some seven butterfly species on our walk, with small heath *Coenonympha pamphilus* and ringlet *Aphantopus hyperantus* the most common and perhaps the solitary comma *Polygonia c-album* the most spectacular, although the small tortoiseshells *Aglais urticae* also impressed us when they settled with wings outspread on the creeping thistles.

A black cylindrical object, superficially resembling animal droppings, was picked up by some unfussy individual who asked what animal might have deposited it. Neville was able to answer this: when closely examined the cylinder was composed entirely of beetle wing cases. It had been regurgitated by a bird of prey, probably a kestrel *Falco tinnunculus*. We returned to Harlaw after a fairly strenuous walk, having spent three hours in the hills on one of the summer's warmest days.

David Adamson

Dollar Glen

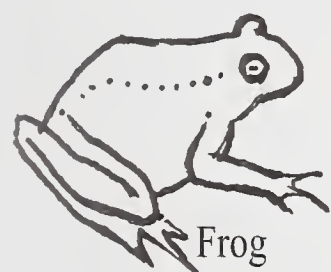
26th July 2014

Leader: Ian Schoolar

Six of us set out in sunshine but rain forecast for later. I had previously asked the National Trust for Scotland (NTS) ranger for a list of plants and he had sent me a list of 166 prepared by Katherine White in August 2012!

In the museum car park attached to a wall were maidenhair spleenwort *Asplenium tricomane*s, black spleenwort *A. adiantum-nigrum* and wall rue *A. ruta-muraria*. David and Sarah also saw a dipper *Cinclus cinclus* in the burn further down West Burnside which was more disturbed up-stream. We walked through the Mill Green which unfortunately had recently been mown, otherwise it is a good grassland habitat.

Into the glen with a predominance of pedunculate oak *Quercus rubra* with some sycamore *Acer pseudoplatanus* at high level. Lower down an abundance of bracken *Pteridium aquilinum* together with male fern *Dryopteris filix-mas*, hard shield fern *Polystichum aculeatum*, soft rush *Juncus effusus* and common sorrel *Rumex acetosa*. The NTS guide claims over 100 moss species and 160 liverworts.



Frog

At the first lookout point we saw a couple of comma butterflies *Polygonia c-album* with a young common frog *Rana temporaria* under the ivy *Hedera* spp and *Homalothecium sericeum*, a moss, climbing up a wall. Proceeding up the east side, hart's tongue *Asplenium scolopendrium* and hard fern *Blechnum spicant* increased the fern count.

Lunch was enjoyed at Castle Campbell, both Historic Scotland (HS) and NTS, on the terrace with many bumblebees to be seen, including garden *Bombus hortorum*, white tailed *B. leucorum*, buff tailed *B. terrestris*, early *B. pratorum* and common carder *B. pascuorum*. A small tortoiseshell *Aglais urticae* rested on the castle wall and the herb garden was well stocked. The views from the castle included the Pentland Hills, the Wallace Monument and the rivers Forth and Devon.

After lunch we proceeded up the unexplored Sorrow Burn with the soil more acid and well drained and good examples of purple moor grass *Molinia caerulea* and mouse-ear hawkweed *Pilosella officinarum*. The hazel *Corylus avellana* were in fruit. Our steps were retraced, returning down the glen on the west side. Selfheal *Primella vulgaris* was in profusion and oak fern *Gymnocarpium dryopteris* and beech fern *Phlegopteris connectilis* were seen. A dor beetle *Geotrupes stercorarius* was found on our path. We reached Mill Green at 15.00 just as the rain started, as forecast.

Ian Schoolar

Odonata at the Bush and Leadburn Community Woodland

2nd August 2014

Leader: Neville Crowther and Tom Delaney

After a successful recce in balmy sunshine on the Monday, our optimism began to sag as the weather predictions for the Saturday became increasingly dire each day. Falling temperatures and perpetual rain were not exactly suitable for a dragonfly excursion. Other than cancellation, dipping for larvae seemed the only option. There were several phone calls overnight apologising for not coming because of the weather.

However, six of us met at the Bush car park and proceeded to search fruitlessly for adults hanging up in trees around the pond. Our dipping was almost as unsuccessful with one tiny second instar *Coenagrion* nymph to show for our efforts. Rob Wallace's presence was helpful in generating a list of other invertebrates which included several backswimmers *Notonecta glauca*, some related lesser waterboatmen *Corixidae* and a larva of the great diving beetle *Dytiscus marginalis*. The net also produced a *Baetid* mayfly nymph, and scores of freshwater cockles *Sphaerium* sp. and snails *Lymnaea* and *Planorbis* spp. Unexpectedly, considering the conditions, there were a few terrestrial insects hiding in the emergent vegetation including common hoverflies and a conopid fly *Conops quadrifasciata* an internal parasite of bumble bees. A large reed-bed spider *Clubiona phragmitis* had cunningly constructed a silken retreat in a folded *Typha* leaf.

We decided that Milkhall Pond might be a worthwhile and more sheltered stop on the way to Leadburn. As we entered the site a dabchick *Tachybaptus ruficollis* with four recently hatched chicks cowered down over the almost flooded nest, looking as despondent as we were feeling. Spirits rose a little as we discovered two damsels, also cowering, in the riparian ruderals. One was a blue tailed damsel *Ischnura elegans* and the other was a male emerald *Lestes sponsa*, also with a blue tail but distinguishable by its 'spreadwings' whilst perched. After examining samples of the wood club-rush *Scirpus sylvaticus* the most scarce plant on the reserve, Tom and I, because it was then after 1pm, decided that we needed to visit the Community Woodland to see if anyone had had the bravery to arrive for the second half of our outing. The remaining four, damp but not unhappy left for home.

Arriving at the meeting point we were faced with a dilemma. An empty car was already there. It was then 1.30pm and the rain was getting steadily more intense. The vehicle resembled Denis and Eunice's but there was no way of knowing. So we sat, listening to the pounding of raindrops and wiping the condensation from our windows. By 2.45pm no one had arrived so we assumed mistaken identity and departed for home.

Neville Crowther

P.S. The car did belong to Denis and Eunice.

Arbroath cliffs

9th August 2014

Leader: Neville Crowther

Seventeen of us arrived by coach at Victoria Park, Arbroath at about 10.30am after a pleasant and uneventful journey via Perth and Dundee. Although initially overcast, the sun broke through the clouds to give a bright afternoon even though the wind was persistent.

The main features of the cliff-top path were the splendid shapes carved in the old red sandstone by wind and wave over many centuries. Originally laid down in the shallow waters of an ancient delta of a long forgotten river over 300 million years ago, these cliffs have been faulted and uplifted, eroded or left standing proud, to create a walk of many miles, unbroken until Montrose. The gullies, caves, pinnacles and archways create a geological sculpture park of immense interest.

The early summer meant that the season was far advanced beyond normal years. Insects too were past their peak or merely sheltering from the wind, although good counts of butterflies and bumblebees were made. Grayling butterflies *Hipparchia semele* were quite common on the patches

of maritime heath, where heathers and tormentil *Potentilla erecta* crouched with devil's bit scabious *Succisa pratensis* on the top of the cliffs. Brambles *Rubus fruticosus*, common knapweed *Centaurea nigra* and sea campion *Silene uniflora* tumbled down the cliff faces attracting small tortoiseshell *Aglais urticae* and common blue *Polyommatus icarus* butterflies and red tailed *Bombus lapidarius* and buff-tailed *B. terrestris* bumblebees. Scots lovage *Ligusticum scoticum* formed patches of bright green vegetation with yellow fruits now clearly visible on the steeper slopes, where the blue-green of maritime fescue *Festuca rubra* was the dominant grass. The maritime cliff soils were nutrient rich and in places the rare and scarce calcicoles like sand leek *Allium scorodoprasum* and carline thistle *Carlina vulgaris* were also found.

It was good to see large numbers of young kittiwakes *Rissa tridactyla* on the nesting ledges, where in recent years in NE Scotland there had been complete colony failures. Many broods were three strong. House martins *Delichon urbica* were still feeding young in the nests perched under overhangs and already migrants such as knot *Calidris canutus* and curlew *Numenius arquata* with common *Sterna hirundo* and sandwich *S. sandvicensis* terns were sheltering from the wind by the rock pools beneath the cliffs.

As we returned to the bus most of our complexions reflected a day in the wind and the sun.
Neville Crowther

Seacliff, East Lothian

13th August 2014

Leader: Neville Crowther

It was another windy, cool day as we gathered above the beach at Seacliff. Mary Clarkson had arrived with many younger relatives all equipped for launching their assault on the rock pools of St Baldred's Boat. However the tide was still receding so we decided it would make sense to do some beachcombing before lunch. It would if nothing else, keep us warm. So 26 of us set off along the curving beach towards the cliffs of the Gegan, an isolated stack at the base of which is reputedly the smallest harbour in Scotland, cut out of the sandstone bedrock to produce an anchorage no more than 30m by 20m. It did have a small fishing boat within and a pile of lobsterpots above it. The top of the Gegan was a splendid viewpoint: to the west the ruins of Tantallon Castle towered over the next headland, with North Berwick and Law beyond. Northwards out to sea was the splendid bastion of Bass Rock still white with its tens of thousands of occupying gannets *Morus bassanus*. Soon lunchtime called and we stomped back along the sand to find shelter in the lea of the fringing sea buckthorn *Hippophae rhamnoides*.



Ascophyllum nodosum



Fucus vesiculosus

Fucus spiralis



By now it had warmed somewhat, but not enough to tempt anyone into a swim suit. Splitting into three parties each with nets and containers we slithered across the now exposed *Fucus* beds towards the St Baldred's Boat monument. The big kelps, large brown seaweeds, of the lower shore and beneath were beginning to wave above the surface, so the low tide

mark was approaching. A constant stream of littoral zone hunters returned to our assembly point with buckets of marine treasure. We had by this time seen the major brown seaweeds marking the succession from upper to lower shore, so were familiar with channelled *Pelvetia canaliculata*, spiral *Fucus spiralis*, bladder *F. vesiculosus*, knotted *Ascophyllum nodosum* and serrated *F. serratus* wracks. The numbers of fragile and distinctly structured red seaweeds began to increase in the sheltered waters of the lower shore, and names like dulse *Palmaria palmata*, *Phycodrys rubens*, *Membranoptera alata* and Irish moss *Chondrus crispus* sprang from our memory banks.

At the same time the diversity of the lower shore's animal life became apparent and we found that the common shore crab *Carcinus maenas* and starfish of the higher pools were joined by velvet swimming *Necora puber*; edible *Cancer pagurus* and hermit *Paguroidea* crabs and two species of porcelain *Porcellanidae* crabs. Brittle stars *Ophiuroidea* and edible sea-urchins *Echinus esculentus* joined the list of *Echinoderms*. The hunter-gatherer instinct seemed to have been reawakened. Everyone seemed keen to catch fish and we were rewarded by specimens of butterfish *Pholis gunnellus*, blennies *Blennidae* and gobies *Pomatoschistus* sp. Less usual finds were chitons or coat of mail shells *Polyplacophora*, breadcrumb sponges *Halichondria panicea*, sea mats *Membranipora membranacea*, *Polychaete* worms and star ascidians – colonial sea squirts. Almost forgotten were the molluscs with four species of winkle, three topshells, two whelks and their egg masses, 'forests' of newly implanted blue mussels *Mytilus edulis* and numerous other bivalves, mostly just shells.

Despite the cold, it appeared that all enjoyed the day. That was certainly true of the coffee and cakes at Tynninghame tea shop.

Neville Crowther

Harehope Forest

23rd August 2014

Leader: David Adamson

Although this was a hastily-arranged outing to replace the postponed trip to Palacerigg, a good turnout of 15 arrived at the familiar car park below the Meldon Hills. The reports on the Society's excursions to Harehope in 2006 and 2010 commented upon the rubbish left by some of the campers who visit the area. Sadly, nothing has changed in this respect. However, these campers appear not to walk any distance from their cars and tents, so the nearby forests are relatively untouched by their mess, and we were soon finding fungi rather than plastic bags and broken bottles.

As soon as we joined the main forestry track round Green Knowe we found stagshorn clubmoss *Lycopodium clavatum*. It thrives among mosses and *Cladonia* lichens where the soil is too poor for grasses, and is relatively common in the forest. There were a few bees foraging on bell heather, one of which was the heath bumblebee *Bombus jonellus*. Other insects were scarce at the start of the walk, and the main natural history interest was in the fungi. None of us were particularly skilled mycologists, but we were at least able to identify one very edible species, *Boletus edulis*. At one point Wilma ploughed through a barrier of sitka branches to collect some of these which were growing in the deep shade beneath the conifers. Happily, a less common fungus was growing in the middle of the path and was therefore more easily seen. This was *Spathularia flavida*, an unusual ascomycete that we found in a different area on our visit four years previously. On a head of ragwort flowers was a blue butterfly, wings folded so that it looked very small. Jackie dispelled any notion that we may have had of this being a small blue, pointing out that the orange colours on the under-wing made it a common blue *Polyommatus icarus*.

Lunch was taken in warm sunshine by the side of a small pond, enjoying the many common blue damselflies *Enallagma cyathigerum* that had appeared. On a patch of devil's bit scabious *Succisa pratensis* were newly-emerged red admirals *Vanessa atalanta*, along with peacock *Aglais io* and small tortoiseshell *A. urticae* butterflies. Although we found no dragonflies at the main pond, a common hawket *Aeshna juncea* appeared beside a nearby pool that also contained great diving beetles *Dytiscus marginalis* and some species of water boatman. As we retraced our steps to the main path, almost every ragwort plant that we saw appeared to have one or more red admirals. On the return journey some of us explored what, at first sight, appeared to be a ruined stiel enclosed by a wire fence. Once inside the fence it was apparent that there were at least two concentric rings of stones, with a large stone in the centre and some depressions in the ground. Stagshorn clubmoss trailed among some of the stones. I expect that this structure is one of the many prehistoric settlements in the area, although it is not shown as such on the Ordnance Survey map.

To return to natural history, Joanie photographed a ladybird on a dead umbellifer. Her photograph shows some unusual light patches on the elytra which, together with the pattern and number of spots, indicates that this may have been a cream-streaked ladybird *Harmonia 4-punctata*, an unusual species in Scotland.

David Adamson

Foulshiels Bing

30th August 2014

Leader: Jackie Muscott

This excursion actually involved two bings, Whitrigg near Whitburn and Foulshiels near Stoneyburn, which are linked by a path along an old railway line.

When Whitrigg Bing was 'reclaimed' woodlands were planted around the bing but a large south-facing area was left untouched, and natural regeneration was able to take place. At first the main vegetation consisted of mosses and lichens but soon other plants began to appear; members of the pea family which can manufacture their own nitrogen, then orchids which are good colonisers of suitable bare ground, while in 2005 clubmosses were first recorded by Mary Clarkson, visiting with a fungus group. Now the bing is becoming more overgrown: there are large patches of garden lupin *Lupinus x regalis* and many young trees which have seeded in from the surrounding area, but a good deal of the earlier vegetation remains.

Our route to the bing led us through woodland, conifers on one side, hard woods on the other, both rich in fungi. There were assorted *Russulas* everywhere, and the colourful wood-rotter plums and custard *Tricholomopsis rutilans* growing on conifer stumps. Edible mushrooms included orange milkcaps *Lactarius deterrimus* growing under spruce and brown birch boletes *Leccinum scabrum* under birch. The former have orange gills which bleed orange 'milk' when damaged; the latter a brown cap, pale pores and dark scales on the stalk.

Emerging into the open area we encountered some alders *Alnus glutinosa* infected by no fewer than three parasitic fungi, the rust *Melampsoridium hiratsukanum* and two species of *Taphrina*. The rust spores appear as a yellow powder on the underside of the leaf, while *Taphrina tosquinettii* produces large blisters on the leaves and *T. alni* produces tongue-like growths on the fruit.



Alpine clubmoss

Avoiding the 'dog cemetery' which has sprung up to the north of the bing, we set off in search of the clubmosses. Stagshorn clubmoss *Lycopodium clavatum* was easily found as the large patches were fruiting vigorously, while alpine clubmoss *Diphasiastrum alpinum* took a little longer as it's much less conspicuous, though it now forms quite a large patch. We didn't find fir clubmoss *Hyperzia selago* which forms small tufts, but I hope it's still around.

As it was a late visit and the season was an early one many of the plants had gone over, but we found flowers of centaury *Centaureum erythraea*, devilsbit scabious *Succisa pratensis*, red clover *Trifolium pratense*, autumn hawkbit *Scorzonoides autumnalis* and tall leafy hawkweeds *Hieracium* sp. There were a number of bumblebees around, but it was too windy for butterflies in this exposed area.

The old railway which joins the bings is traversed by a stream which is sheltered and provided with a bench, and here we had lunch. There was a nice patch of marjoram *Origanum vulgare* nearby and a small colony of wood horsetail *Equisetum sylvaticum* and we recorded our first butterfly here - a small copper *Lycaena phlaeas*.

Foulshiels Bing is largely wooded, with conifers on the bing proper and mixed woodland in the area round about, though there are also open and marshy areas with orchids and water plants. Stagshorn clubmoss which must have been an earlier coloniser can be found on some pathsides and

open areas. Among the conifers there is a very large colony of common wintergreen *Pyrola minor*, over a thousand rosettes, and we saw hundreds of seed heads. There were butterflies too, in sheltered glades where patches of devilsbit seabious were flowering; red admirals *Vanessa atalanta*, peacocks *Aglais io* and the odd small tortoiseshell *A. urticae*. There were also more mushrooms, mainly associated with birches, the orange birch bolete *Leccinum versipelle* with an orange cap and dark scales on the stem and the woolly milk-cap *Lactarius deterrimus* which has a beautiful pink cap, shaggy when young. And David pointed out a very attractive moss, the plume moss *Ptilium crista-castrensis* which has delicate fronds like miniature ostrich feathers.

On our return journey we added green-veined whites *Pieris napi* to our butterfly list while swallows *Hirundo rustica*, not yet departed for warmer climes, swooped overhead. Quite a varied day, and it was nice to see Roger again after our very successful summer holiday in his neck of the woods.

Jackie Muscott

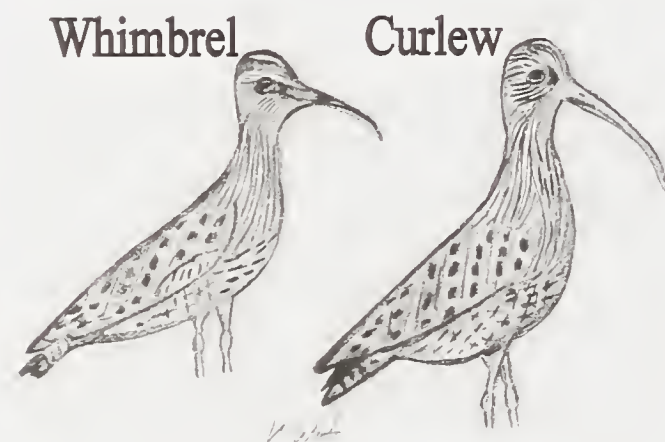
Roger, who had joined the outing during a visit to Scotland later identified both a caterpillar on weeds near our parking spot and a moth photographed on Foulshiels Bing. The larva was that of a broom moth *Melanchra pisi*, while the moth was identified as the sawfly *Xanthia icteritia* after recourse to Ispot.

Kilspindie and Gosford Ponds

6th September 2014

Leader: John Palfery

Twelve members successfully negotiated the road closures and diversions in place for the Scottish Half Marathon and met at Gosford. The day split into two: Kilspindie in the morning and Gosford Ponds after lunch.



High tide was at 1.00 p.m. and at Kilspindie the tide rose quickly. During the walk to Aberlady Point, the birds seen were indicative of the approach of autumn. There were small numbers of widgeon *Anas penelope*, the first of the large numbers which will spend winter with us or further south. At the point a wader caused discussion: a whimbrel *Numenius phaeopus* or a curlew *N. arquata*? One feature which helps distinguish the former is its shorter bill which is less evenly curved than a curlew's and looks as if it has been bent at the tip; however, male curlews also have shorter bills than

females, and juveniles in turn have shorter bills than adults! So, was the crown patterned with dark and pale stripes? Possibly, but difficult to see. Eventually the incoming tide forced it to fly and it uttered the diagnostic rippling whistle of a whimbrel – in some areas of Britain this distinctive call has given it the local name of 'Seven Whistler'.

Other birds noted were also reminders of the changing seasons. Meadow pipits *Anthus pratensis* flew around us as we walked along the salt marsh. These may have been local migrants, moving down to lower ground in advance of the winter, or birds heading south from Scandinavia or Iceland. Small groups of swallows *Hirundo rustica* were feeding, probably local birds as the juveniles were still being fed by adults. Perched on the telephone wires this year's birds could easily be distinguished from the adults by their stubby tail feathers. Another species with both adults and juveniles present was lapwing *Vanellus vanellus* and, although only their heads were visible at the edge of the marsh, the juveniles were easily identified by their shorter crests.

The most exciting bird species of the morning, however, was little egret *Egretta garzetta*, and not just one but four. Until 1990 this was a national rarity, requiring the submission of a description to the British Birds Rarities Committee. It is a very elegant addition to our avifauna, with a feeding technique completely different to its larger, rather stolid cousin, the grey heron *Ardea cinerea*.

Whereas the latter tends to remain motionless, moving only with extreme stealth, the little egret dances, darting about, sometimes spreading its wings, sometimes showing its daffodil yellow feet. It first bred in Dorset in 1996 and now also breeds in Wales and Northern Ireland – but not yet Scotland!

Beyond Aberlady Point a group of seals, probably grey *Halichoerus grypus*, which had hauled out in the sunshine, were being lifted off the rocks by the rising tide.

Just before lunch, all the waders took flight. Two flocks of lapwings *Vanellus vanellus* climbed high above the estuary. Surely there must be a bird of prey in the area? And there it was - the compact and powerful silhouette of a peregrine *Falco peregrinus*.

After lunch we called in at Waterston House, the SOC headquarters, where we took advantage of Dave Allen's kind offer of coffee and tea. We then walked around Gosford Ponds where the bird life was quiet and attention switched to plants, fungi and insects.

A small clump of common fleabane *Pulicaria dysenterica* was growing near the Mausoleum.

Despite its name, it is rare in the Lothians. The name comes from the belief that, if burned or hung in bunches, it could rid a house of fleas, a belief resulting perhaps from its curious scent - 'hints of chrysanthemum and carbolic soap' according to Richard Mabey in *Flora Britannica*!

The fungus of note and notoriety was the deathcap *Amanita phalloides* - deadly poisonous and causing liver failure and death. David Adamson found a small group of fruiting bodies beside the path. It is extremely rare in Lothian – the National Biodiversity Networks (NBN) Gateway shows only one site, near Dunbar. *see note below

Large numbers of male speckled wood butterflies *Pararge aegeria* were defending their territories, patches of sunlit woodland. Like the little egret, this is a recent coloniser. During the second half of the 19th century it declined widely in Britain and only re-established itself in the 20th. First recorded in Lothian about twelve years ago, it has now reached Gosford; it cannot be long before it occurs in Edinburgh. A grey dagger moth *Acronicta psi* caterpillar was the final sighting of an interesting day. John Palfery

*Deathcap was found on 16/9/00 in another part of Gosford on a Nats outing. Jackie Muscott

Tynninghame

13th September 2014

Leader: Chris Ellis

On a warm, still and hazy day 16 gathered at Limetree Walk, Tynninghame for a lichen foray in the woods and on the coast. The Ellis family were all present with Becky acting as high powered support to Chris and their boys, Simon and Wyn, also determined to provide a helping hand.

For those present and not familiar with lichen biology and identification, they were treated to an introduction to the symbiotic nature of the organism with the complementary roles of the fungal and algal partners in such associations. Principles of lichen taxonomy were tackled by using nearby examples from trees of the main morphological types, crustose, fruticose and foliose. The variations in structure of the three types were discussed, helped by microscope photos of sections through the thallus and various reproductive structures.

Ecological and climatic variations which determined the success of lichens was discussed. This included rainfall, humidity, historical & present day pollutants, bark, soil and rock pH and buffering effects. Wind and predator damage was remarked upon when examining some fruticose specimens apparently chewed down to their holdfasts. We examined smooth barked trees such as ash *Fraxinus excelsior*, hazel *Corylus avellana* and sycamore *Acer pseudoplatanus* which displayed communities of crustose lichens distinguishable by their fruiting bodies, 'jam tarts', some with a contrasting rim and others rimless. The former were known as lecanorine, the latter lecideine after the genera that displays these features.

An interesting offshoot into history was discussed which was of research interest to Becky - crustose lichens of bark on old building timbers of known age can still be identified and then

compared against today's lichen flora to determine historical changes, such as the effects of pollution during the industrial revolution.

Fruticose lichens from the genera *Ramalina* and *Evernia* were found on certain trees.

Parmelia and the similar *Punctelia* (formerly *Parmelia*) species, all foliose, decorated others.

A notable diversion had been taking place as we wandered through the sun dappled trees. Most of us were witnessing one of the more prominent effects of climatic change as it became apparent that there were scores of speckled wood *Pararge aegeria* butterflies occupying territory and competing against others to retain it. Only ten years ago there had been none nearer than the Tweed haughs.

We progressed to the coast for lunch and the overview of the maritime rocks which displayed quite distinct lichen communities arranged in colourful bands between low and high tide, best seen from afar. The lichen band nearest the low tide mark is made up of black lichens of the genus *Verrucaria*. Next are yellow orange lichens of several genera, *Xanthoria* & *Caloplaca* being the commonest. In the upper shore, a zone of mainly grey lichens belonging to one of the biggest genera *Lecanora*, is found with several others. At the highest point of the saline influence were mainly grey, almost white lichens belonging to other species of *Ramalina*, such as sea ivory *R. siliquosa*.

For a while we watched the gannets *Morus bassanus* still flying to and from the Bass Rock. Some were in juvenile plumage, perhaps on their first experimental flights. A number of goosanders *Mergus merganser* were loafing on the seaweed covered rocks and swimming between the islets. They too must have recently left their nesting areas upriver in the hills.

On the way back to the car park, deep in the shade of the mature plantation woods, were sycamores with boles displaying large pale white-grey crustose thalli of *Phlyctis argenta*, which react to potassium hydroxide solution by turning yellow and then claret red. Chris demonstrated the use of different reagents as a tool in the lichenologists arsenal for identification. Soon we were back at the carpark and we said our thanks and goodbyes to Chris whose other duty was then to find Becky and the boys. Building sandcastles had taken over from lichens.

Neville Crowther

Bolton to Coulston Old Mill

20th September 2014

Leader: Pauline King

Hens and a crowing cockerel watched 15 members pass their garden in Bolton, on the way down to our starting point at the signpost for Gifford.

Initially the route crossing the Colstoun Water followed the edge of newly planted fields. The spelling of Colstoun Water and Coulston Mill differ. Amongst the hedgerows with fruiting brambles, rosehips and sloes we found the cut-leaved blackberry *Rubus laciniatus*. At this stage we also saw sparrowhawk *Accipiter nisus*, yellowhammer *Emberiza citrinella*, wren *Troglodytes troglodytes* and great tit *Parus major*. The flock of lapwings *Vanellus vanellus* on the fields three weeks earlier were nowhere to be seen.

The fungus *Bolbitis titubans* (syn. *B. vitellinus*), was on the centre of the tractor tracks, and at the end of the first field, fairy ring champignons *Marasmius oreades* made a weak attempt at forming a circle. As we continued by creeping thistle *Cirsium arvense* it was found to have large numbers of 7 spot ladybirds *Coccinella 7-punctata*, and the jay *Garrulus glandarius* which had been calling flew out across a field. On gorse *Ulex europaeus* bushes we found gorse shield bugs *Piezodorus lituratus*, both adult and nymph, and numerous orb spiders. A wood cranesbill *Geranium sylvaticum* was in flower and the small distinctive sedge *Carex remota* was seen.

In a section of beech wood towards the stream we found the slimy milkcap *Lactarius blennius*, sulphur tuft *Hypholoma fasciculare*, blackening brittle gill *Russula nigricans* and beechwood sickener *Russula nobilis*. A wide



**Angle Shades
a distinctive moth**

range of *Mycena* including lilac bonnet *Mycena pura* and *Gymnopus dryophilus* (syn. *Collybia dryophila*) were seen. We could hear chiffchaff *Phylloscopus collybita* and nuthatch *Sitta europaea* as we sheltered from an unexpected rain shower while looking at fungi and mosses and an angle shades moth *Phlogophora meticulosa*.

With rain still falling we continued to an area which had been felled and replanted and where a weasel disappeared behind an upturned tree stump. Also seen here were plums and custard *Tricolomopsis rutilans*, *Hericium erinaceum*, hedgehog fungus *Hydnum repandum* and butter cap *Collybia butyracea*. A strikingly coloured sawfly caterpillar was found.



Hedgehog fungus

We stopped early for lunch to stay within the shelter of the wood and during the break jelly babies *Leotia lubrica* and *Cortinarius* sp were found. Also seen was the distinctive wood staining of *Chlorociboria aeruginascens* but without the green elfcups. The skies cleared by one o'clock and we carried on along the river side where grey wagtail, a heron

and dippers were seen. Two great spotted woodpeckers from earlier on the walk were noted. A spectacular specimen of an orchid *Dactylorhiza* sp up to 90cm tall was seen, also false brome *Brachypodium sylvaticum* and hairy brome *Bromopsis ramosa*. By lunchtime the range of mosses had covered all the usual suspects and also seen was bristle club rush *Isolepis setacea*. Although we did not find a badger set, there seemed to be evidence from various paths and flattened grass areas indicating possible areas for young at play.

As we passed Coulston Old Mill we found, close to the water's edge, orange peel fungus *Aleuria aurantia*.

At our turn-round point by one of the deer fence gates we spent some time with the hand lens to look at lichen cousins *Pertusaria amara* and *P. pertusa*, the latter of which showed the distinctive little faces. The former when tasted was so bitter it left two members spitting for some time after. It is the quickest way to identify this species of lichen.

Climbing back up along the path in warm sunshine we found *Russula cyanoxantha* and honey fungus *Armillaria* sp and wood sanicle *Sanicula europea*. At the top the path levelled out onto a field planted for game bird management and we crossed over to an area planted with Timothy grass *Phleum pratense* where we also found cocksfoot *Dactylis glomerata* which was proliferating. While discussion regarding this phenomenon continued, others in the group were watching a group of yellowhammer flying between the hedgerows, trees and telegraph wires. Rough chervil *Chaerophyllum temulum* and field woundwort *Stachys arvensis* were also recorded.

The sun was warm and the skies blue, bringing out red admiral butterflies and as we retraced our steps common darters *Sympetrum striolatum*, a male and two females, were seen and while one group watched these and a common hawket *Aeshna juncea* female, egg laying, another group were finding birch shieldbugs *Elasmotethus interstinctus* and nymphs.

A day which started out at 13C, with damp and wet conditions, transformed into a lovely early autumn afternoon at 19C plus full sunshine helping a great range of finds on the day. The step count for the day was 9300, if anyone is counting.

Pauline King

Birnam

27th September 2014

Leader: Wilma Harper

Somewhere just south of Birnam the Highland Boundary Fault crosses the A9 and the landscape changes as the metamorphic rocks lend a ruggedness to the scenery not found in the central belt. I've got into the habit of offering a forest excursion to the Dunkeld area in September knowing that

we will get fungi and a good walk.

The day started well as we came off the A9 into Birnam and a red squirrel *Sciurus vulgaris* ran across the road in front of us. Standing in the car park waiting for people to arrive we had perhaps six jays flying above us. We assembled near the Beatrix Potter garden and took time to look at the information boards describing her connection with the area. Although now popularly known for her children's books, she was a skilled naturalist with a particular interest in fungi, a keen observer with an enquiring mind. During her family holidays in the Dunkeld area she got to know the area's natural history under the guidance of the local postman and naturalist Charles McIntosh. Her contribution to science is now recognised but at the time the male dominated societies shunned her contributions.

I am indebted to Mary Clarkson for the following paragraph sharing her observations of the fungi we saw on the day. We saw a good number on our walk, more than are sometimes seen on a specialised fungus foray, starting with a fine specimen of golden sock *Phaeolepiota aurea* outside the Beatrix Potter Centre. The track ran through broad-leaved trees to start with and by its side was a good selection of fungi including the aniseed-scented fragrant funnel *Clitocybe fragrans*, the mealy-smelling miller *Clitopilus prunulus* and a host of jelly babies *Leotia lubrica*. Perhaps the most prominent, however, was a white toadstool which lined the path in clumps and which was later identified as white domecap *Lyophyllum connatum*. The path now led through an area of conifers and birches and here fungi included slippery jack *Suillus luteus*, larch bolete *S. grevillei*, orange birch bolete *Leccinum versipelle* and ochre brittlegill *Russula ochroleuca*. The most spectacular, however, in a wood by the Mill Dam, were dozens of fenugreek milkeap *Lactarius helvus* – no prizes for guessing what their smell was like!

The walk took us up the Inchewan Burn in an attractive glen between Birnam Hill and Ladywell Plantation. Once away from the noise of the A9, I stopped to explain how the burn which had once been an important spawning burn feeding the Tay had degraded with the gabions which had been put there to protect the banks coming apart and forming a lethal trap for fish. In 2007 restoration work began in a partnership between the Scottish Environmental Protection Agency, the Tayside Biodiversity Partnership, the local Head Gillie, Scottish Native Woods and the Forestry Commission. The damaged gabions were removed and a natural channel bed was recreated with rocks to create a more stepped profile and reduce scouring and allow gravel to build up. Further upstream, overshadowing conifers were removed. As well as improving the burn for fish, the overall effect has been to make the glen an attractive place to walk.

As we walked up the road along the side of the burn the steady ascent was to some extent masked by stopping regularly to look at plants and fungi. Lunch was on a bank by a bridge, a good distance closer to the start than my original intended stopping place, but that's the Nats for you. This was the crossing point into Ladywell Plantation, initially spruce, where we caught a dor beetle *Geotrupes stercorarius* but opening up into pine forest with heather and blaeberry *Vaccinium myrtillus* understorey. A detour to the dammed lochan which feeds the burn resulted in a different range of fungi, particularly the fenugreek milkeap, and some good views of black darters *Sympetrum danae*, who seemed to favour the wooden half-boxes constructed for duck shooting.

Back on the forest track and leading from the front!, I picked up some scuffling noises in the trees and signalled to the others to go quietly. This resulted in a good 10 minutes sheer pleasure watching a red squirrel scampering and at times positively teasing us.

We walked through Ladywell and back to join the Tay at Inver realising as we walked briskly downhill how much height we gained while being too distracted to notice. This took us to the banks of the Tay which is much more of a town path frequented by visitors and dog walkers. It did however let people see the Birnam Oak and the Birnam Sycamore, majestic veteran trees. We also found a good specimen of the prince *Agaricus augustus*. Careful planning or just good luck brought us back to the Birnam Institute in time before it closed to enjoy tea and home bakes.

Wilma Harper

Holyrood Park

4th October 2014

Leader: Vladimir Krivtsov

It was a rainy October day when six intrepid Nats met to explore the geological features of Holyrood Park, led by Vladimir. We started out at the north edge of the park and made our way towards St. Anthony's Chapel. As we went, Vlad pointed out the layers of ridges and cliffs leading towards Arthur's Seat itself. These have been formed by the differences in erosion between younger, hard igneous rock and older sedimentary rock or ash. The lower cliffs, called the Dasses, are basalt, formed from magma intruding into the surrounding rock under pressure and then cooling slowly. The resultant rock is very smooth compared to the gnarled rock of the higher ridges which were formed from relatively rapidly cooled lava flows erupting variously from Castle Rock, Arthur's Seat, the 'Lion's Rump' and Pulpit Rock. Sometime after the volcanoes became dormant, the land in this area tilted towards the east and later on underwent glaciation in the ice ages. The end result is a series of ridges with steep sides to the east and long tails to the west. Once higher up, the ridges along Whinny Hill which were formed by multiple lava flows are particularly clear. We followed the ridge known as Long Row towards Arthur's Seat, trying to make out the impressions of Bronze Age buildings below on the Dasses. It's also towards the top of this ridge that the old glacial corrie that formed here is particularly obvious. We walked over the shoulder of Whinny Hill towards Dunsapie Hill which is another basalt intrusion which has resisted the erosion that removed its surrounding sandstone.

The weather started to clear at around this point and it wasn't all rocks and geological formations either. In short order we collectively saw both a kestrel *Falco tinnunculus* and a sparrowhawk *Accipiter nisus* in this general area. Then, making our way along the Queen's Drive from here we also took a look at the various plants growing on the south-facing cliffs. In particular we were looking for forked spleenwort *Asplenium septentrionale* which is a nationally scarce species of fern. Once you're in the right place and have your eye in for the right kind of scraggly grass tuft you will notice it dotted over the rocks. On finding it we were also able to spot four different species of spleenwort all growing within about 2 metres of each other: maidenhair spleenwort *Asplenium trichomanes*, wall-rue *A. ruta-muraria* and black spleenwort *A. adiantum-nigrum* being the others. Also in this area were viper's bugloss *Echium vulgare*, three species of cranesbill *Geranium* spp and black horehound *Ballota nigra*.

Vlad also pointed out some more geological features on the south side of the park here: there are sections of cliff above Queen's Drive which are made from conglomerate rock, several rocks low down by the roadside show signs of glacial weathering and below the road there's the well-known section of basalt columns known as Samson's Ribs



Buff ermine caterpillar

which have formed as a result of very slow cooling - this is the same kind of phenomenon that built the Giant's Causeway and Fingal's Cave. Having taken this all in it was time to take a look at the features of Salisbury Crags by walking the Radical Road. The tall cliffs provide a massive section of the rock strata, exposing a lot of the underlying structure quite clearly including the preserved area known as Hutton's section where a huge layer of basalt has intruded into the surrounding much older sandstone, and Cat Nick – a small fault in the cliffs close to a distinct laval intrusion to the left of it, noticeably greener than the surrounding rock and cutting straight through the layers of sandstone that make up the crags. We walked down from here to our starting point seeing little else except some buff ermine *Spilosoma luteum* caterpillars making mad dashes across the path.

A surprisingly good day out given the wet and blustery start and many thanks to Vlad for being such a good guide and putting up with my rather basic questions!

Rob Wallace

Heriot Watt University Campus: Great Expectations

18th October 2014

Leader: Eunice Smith



Shaggy ink caps
Lawyer's wigs

Three days before the date of the fungal foray to the grounds of Heriot Watt University at Riccarton Denis and I visited the site. Past forays there have been very productive so we had high hopes of good records. The Estates Manager provided leaflets with information about the layout of the grounds, their history and biodiversity. He also advised us about areas to avoid where work was ongoing. We were eager to inspect the long strip of grass and trees near the main visitor carpark as it had been the source of some unusual fungi in the past. I soon caught sight of a solitary large shaggy inkcap *Coprinus comatus* standing proud and beginning to shed 'ink' from its cap. Although quite common this early find promised well – or so I hoped. The sycamore leaves which were scattered around were covered in tarspot *Rhytisma acerinum*. This colonisation is a sign of a 'clean' atmosphere but is not uncommon in and around Edinburgh. Although areas of rough woodland and broad swards of

grassland were searched there was little evidence of fungal growth. Similarly the relatively recent Millennium feature was attractive but yielded nothing of mycological interest. Throughout the rest of the afternoon the fungi were indeed few and far between. We returned home dejected and wondered how interest could be sustained during the coming foray!

Three days later the sun was shining and at least 19 eager forayers arrived carrying containers of all shapes and sizes so we sallied forth. We started at the strip of grass which formed the deep border near the car park. Instead of one lonely *Coprinus comatus* large numbers were now in sight - some clustered and others growing alone. Hope was now restored and fungi of all sorts drew our attention as we made our way around parts of the extensive estate. Some, such as candlesnuff *Xylaria hypoxylon* and dead man's fingers *X. polymorpha*, were easy to identify on the spot because of the substrate of dead wood and the blackness of the main part of the fungus. Others helped jog memories by the distinctiveness of their colour e.g. fly agaric *Amanita muscaria*, coral spot *Nectria cinnabarina*, field blewit *Lepista saeva*, ochre brittlegill *Russula ochroleuca* and orange peel fungus *Aleuria aurantia*. Some fruiting bodies seemed to set traps for us by changing colour as they develop. The common names deceiver and amethyst deceiver *Laccaria laccata* and *L. amethystina* warn not to jump to conclusions and white fibre-cap *Inocybe geophylla* can also benefit from a double-take regarding colour.

There are sometimes easier ways of arriving at a possible name for species of fungi in the field. Among those found on this visit specimens such as aniseed funnel *Clitocybe odora* and fragrant funnel *C. fragrans* have distinctive smells. However other species of the same genus such as trooping funnel *C. geotropa* and clouded funnel *C. nebularis* are less likely to give such a clue. If the gills of a lactarius are damaged they exude 'milk': that characteristic and the texture of the cap result in the name fleecy milkcap *Lactarius vellereus*.

The most direct route for a beginner to identify the genus of a fungus is likely to be the shape of the fruiting body although inevitably the habitat and many other factors such as those mentioned already should be taken into account. The brown birch bolete *Leccinum scabrum* with pores rather than gills and the stump puffball *Lycoperdon pyriforme* with its sac of spores were each found and identified. The shaggy parasol *Macrolepiota rhacodes* lived up to its name and ergot *Claviceps purpurea* was spotted by folks with keen eyesight.

Some rain and better temperatures had certainly worked their magic and brought the fungi to 'fruit' in time for the foray. The rain also came again during the visit - but was perfectly timed for our lunch-break! We settled down in the indoor seating area near the canteen and had a table to display, share and discuss our finds at length. Thanks to Heriot Watt for a very nice welcome.

Eunice Smith

Saltoun Forest

25th October 2014

Leaders: Committee

Also known as Saltoun Old Wood, this square mile of forest has probably been afforested for centuries. It occupies the land east of the Birns Water, just upstream of its confluence with the Humble Water. After being clear-felled during the Second World War it has been replanted with an unusual mixture of trees, some of which were experimental plantings and laid out in rows which were helpfully labelled. For example, one row of lodge pole pine, *Pinus contorta*, was planted in 1959 using seedlings from an island off the coast of Alaska, while other rows contained such species as Austrian pine *Pinus nigra*.

Much of the fringe of the forest is dominated by oak *Quercus* spp and beech *Fagus sylvatica*, while Douglas fir *Pseudotsuga menziesii*, western hemlock *Tsuga heterophylla*, grand fir *Abies grandis*, larches *Larix* spp. and various pines *Pinus* spp., as well as Norway spruce *Abies procera*, appear to be the main commercial conifers. Formerly a Forestry Commission plantation, then owned by Dumfries & Galloway Council pension fund, it has been the property of Winton Estates since the 1990's. There appears to be much recreational use by dog-walkers, cyclists and pony trekkers, but the forest is large enough to absorb all of this without any noticeable damage to the habitat. There are now many more paths than are shown on the 1:50,000 Ordnance Survey map, and several ponds have been created in the last twenty years, at least one of which is home to a healthy population of palmate newts *Lissotriton helveticus*.

After negotiating the pot-holed track to arrive at the car park, we walked along the western side of the forest, well above the course of the Birns Water. We saw and heard nuthatches *Sitta europaea* and goldcrests *Regulus regulus* in the trees, but the strong wind appeared to silence some of those species, such as jays *Garrulus glandarius* and great spotted woodpeckers *Dendrocopos major*, that had been heard on a visit two days previously. A pair of ravens *Corvus corax* flew overhead and a buzzard *Buteo buteo* coursed low over a nearby field. Small finches such as siskins *Carduelis spinus* were heard rather than seen.



The fungi were occasional rather than abundant, probably testimony to the dry autumn rather than the lateness of the season. Some mushrooms were miniature versions of their normal selves, while others had swollen to dinner plate size. Of the latter *Lactarius vellereus* was the most impressive, if a bit past its best. When we did find fungi, there were often several species growing in a small area. For example *Boletus edulis* was found beside a *Cortinarius* sp and *Gymnopilus penetrans*, and two species of bolete, *Leccinum variicolor* and *Suillus variegatus*, were neighbours in a mixed area of conifers birch saplings. When cut, the otherwise drab *Leccinum* obligingly displayed the two colours that give rise to its specific name: intense sky blue in the base and pink in the stem below the cap.

There were still a few plants in flower, such as centaury *Centaureum erythraea*, devilsbit scabious *Succisa pratensis* and, most surprisingly, a single plant of bugle *Ajuga reptans*. It was flowering beneath a southern beech with reddening leaves and open seed cases. This appears to have been rauli, or Chilean beech, *Nothofagus alpina*, of which a number flank one side of the main path close to entrance, and facing a single Brewer's spruce *Picea breweriana*.

At the car park was one last item of natural history interest when a beetle with deep blue elytra emerged from a dry fungus collected some hours earlier. On checking, this appears to have been a leaf beetle of the genus *Oulema*, which has been photographed in Saltoun Wood before. As there is definitely much more to see than can be found in a four-hour walk in late October, we hope to revisit the forest some time in the summer of 2015.

David Adamson

Spilmersford to Nisbet, East Lothian

15th November 2014

Leader: Pauline King

Sixteen members met at the Easter Pencaitland bus terminus at an area where the ruins of limekiln working were just visible above the tangled vegetation. A summary was given from East Lothian county records from the recently published 'Mud in your Eye' by Laura Douglas:

- Butterflies – Now 25 species including green hairstreak, high in the Lammermuirs and large skipper recorded south of Dunbar. The rangers are expecting further new arrivals along the south eastern coastal corridor next year, possibly the gatekeeper and marbled white.
- Birds – 'Off-course' arrivals this year included the brindled tern in early July and the greenish warbler at John Muir Country Park in June. Arrivals reflecting changes to climate/management included red kite and 9 little egrets at Aberlady.
- Bumblebees – New records have resulted from monitoring changes to botanical species after the introduction of conservation grazing schemes, namely the bilberry, gypsy cuckoo, southern cuckoo and tree bumblebee.

Today's outing, running along the Tyne Water and River Tyne, close to the Kinchie Burn and Birns Water seemed a useful time to mention also the findings of the Forth Fisheries Trust 'Fish Populations of the River Tyne Catchment', Dr Joanna Girvan, www.fishforth.co.uk, which concluded that salmon productivity appears to be negatively impacted and restricted by the presence of seven barriers on the main channel of the River Tyne. Salmon have been consistently absent from the channel upstream of Pencaitland. The Bearford Burn has experienced habitat loss due to excessive siltation with the result that the salmonid population has been decimated. The sub-catchment would benefit from a silt management plan. The Gifford Water does not support salmon, lamprey or eels, but has a strong trout community. It is not clear why this should be the case. The Met Office warning for heavy rain the day before had been accurate and while the day was dry for the outing, the river was higher than normal but our route was blocked in only one place, at the Spilmersford Bridge where we changed course to walk over the road rather than under the bridge. There seemed a surprising number of plants in flower including white dead nettle *Lamium album*, bush vetch *Vicia sepium*, red campion *Silene dioica*, dandelions *Taraxacum* agg, buttercups and daisies.

Much of the woodland in the first area of the walk comprised poplar *Populus* sp and alder *Alnus glutinosa* and a flock of approximately 20 siskin *Carduelis spinus* were observed for a considerable period of time feeding on the alder cones. Several dippers *Cinclus cinclus* were seen and one provided a good spell of entertainment during the lunch stop in addition to a grey wagtail *Motacilla cinerea* and a heron *Ardea cinerea* flying past. We were accompanied for the majority of the walk by noisy wrens *Troglodytes troglodytes* and a great spotted woodpecker *Dendrocopos major* was also seen briefly. Several skein of pink footed geese *Anser brachyrhynchus* flew over.

Fungi finds included *Crepidotus mollis*, honey fungus *Armillaria* sp, the weeping widow *Lacrymaria lacrymabunda*, and the prince *Agaricus augustus*. The day ended with the redlead roundhead *Leratiomyces ceres* (syn. *Stropharia aurantiaca*) in a back garden, on rotting sawdust. This was only the second time that Mary had come across this species. Finally we were also pleased to spend time watching a large flock of fieldfare *Turdus pilaris* in the trees from the edge of the stubble field close to Nisbet.

Pauline King

Yellowcraigs

6th December 2014

Leader: Committee

First of all we inspected the new loos in the car park - a welcome innovation! We set off for a walk along the beach to North Berwick. It was good to see the glossy leaves of Alexanders *Smyrnium*

olusatrum still thriving on the edge of the path, and a few yards further on there was a lovely clump of *Clitocybe nebularis*. We had a good view of Fidra, the island which reputedly inspired Robert Louis Stevenson to write Treasure Island. He spent many holidays thereabouts as a child. The sun was shining on the lighthouse and along the Fife Coast, but a cold wind kept us moving.

A group of redshank *Tringa totanus* lined up on a rock for our benefit, with the islands of Lamb and Craigleith in the background, a lovely picture, if only I'd had my camera! Some of the birds were out to confuse us: a sanderling *Calidris alba* poised on a rock instead of its usual place on the sand and a group of turnstones *Arenaria interpres* bustled about on the rocks. We had a discussion about the difference between shags *Phalacrocorax aristotelis* and cormorants *Phalacrocorax carbo*, and Molly told us that shags are smaller and their wings beat faster. They are not usually seen inland, so if you see one there, it will likely be a cormorant! Cormorants dive from the surface, in a plop, and they are the ones which hold their wings out to dry. She also pointed out a bar-tailed godwit *Limosa lapponica*.

It was too cold to linger so we hastened on to North Berwick, where some of us went into the Seabird Centre for fish and chips, while others braved the cold to eat our picnic on the seats outside. We romped back to Yellowcraigs on the John Muir Way. Altogether we had a very successful day: a bit of birdie interest, lovely views, good company and chat - an ideal winter walk. Many thanks to the Excursion Committee.

Sandra Stewart

Mortonhall Estate and Christmas Lunch

29th December 2014

Leader: Janet Watson

We chose another venue in Edinburgh to assist those members who like to come for the lunch only, and there were six of them this year out of the 19 who had lunch. There were four who came for the short walk only.

Seventeen of us met at the Klondyke Garden Centre in Frogston Road West and we set off in a westerly direction through the trees at the end of the car park and then beside a field which is often muddy but the ground was frozen making for clean walking. We turned right along an avenue of trees and then into the Mortonhall Arboretum, now somewhat neglected since the heyday of the Trotters of Mortonhall but nonetheless the huge roots of an uprooted cedar added interest.

Mortonhall has been a place of note even by the Romans whose roads met at Fairmilehead. John Trotter, first Baron of Mortonhall, bought the estate in 1635. The built architecture dates from 1760.

There was not much to see botanically but there was bracket fungus high up on a sycamore *Acer pseudoplatanus* and frosted Jew's ear *Auricularia auricula-judae* and hart's-tongue *Asplenium scolopendrium*. The bird life was better and included great tit *Parus major*, chaffinch *Fringilla coelebs*, thrushes *Turdus* spp and a great spotted woodpecker *Dendrocopos major*. After leaving the Arboretum we passed what had been a huge walled garden which contained only short grass, but the high walls looked well

presented and it appeared to be well used as a dog exercising area. At that point we were treated to a spectacular display of crows *Corvus* mobbing a buzzard *Buteo buteo*.

We continued in a mainly westerly direction through the wood as far as we could and circled back behind the former Princess Margaret Rose Hospital. Again there was nothing much of botanical note but there were plenty of birds and grey squirrels *Sciurus carolinensis*.

Not many had visited this small area before but some were keen to return later in the year.

We then drove a short distance to Toby's for lunch.

Janet Watson



Great tit

Winter Talks held each month at the Guide Hall, Melville Street

The meetings include society business, the talk by a guest speaker and refreshments.

Moths and Butterflies – The Same but Different

22nd January 2014

Speaker: Duncan Davidson

Duncan Davidson is the current Butterfly Conservation county moth recorder for Fife and Kinross and butterfly recorder for east of Scotland. When he was younger he found a box of pinned butterflies that his uncle had collected while stationed in India and Africa during the Second World War. This started his interest in moths and butterflies and he began a moth collection of his own. Duncan's work as a recorder involves collecting moths by using various methods from simple porch lights to specialist light traps and artificial nectar. Within the county that he records, there are also a number of people who send finds in to him to be included in recordings. This information is then used to show losses and gains in the moth and butterfly populations, and to map where threatened species are in the UK. This information is passed on to government departments such as the Planning Department.

There are 59 species of butterfly and 2500 species of moth in the UK. Even though moths and butterflies belong to the same family *Lepidoptera* there are some physical differences between the two. Butterflies tend to have club-shaped tips on their antennae while moths have feathery or comb-like ones. Most moths are stout and furry with dull wing colouration helping with camouflage. Butterflies tend to be the complete opposite with smooth and slender body segments and bright wing colouration. As well as these physical differences moths are mainly nocturnal while butterflies are diurnal.

Fraser Donachie

Knoppers, Spangles, Ram's Horns and Marbles: the Wonderful World of Oak Galls

26th February 2014

Speaker: Professor Graham Stone

Professor Graham Stone, University of Edinburgh, gave an interesting talk on galls in general and oak galls in particular, with some spectacular photographs. Oak galls which have many bizarre and wonderful names and shapes are normally caused by gall wasps. Oaks are many millions of years old and very widespread, so have had plenty of time to diversify to around 700 species, and the wasps which parasitise them have also had to diversify - to around 1000 species worldwide.

Galls affect many plants and have a variety of causes, from wasps to aphids to fungi, all of which stimulate an overgrowth of plant tissue to provide food and protection for the gall-maker. Insect galls are formed round an egg injected into some part of the plant and the inner part of the gall provides food for the developing larva while the outside is protective. In the case of oak galls, the inner part is very high in nutrients and devoid of the tannins normally found in oak tissues, while the outside is often very high in tannins which are very toxic, or may be gluey or spiny to frustrate the attentions of predators such as birds, mice and parasitic wasps which attack the larva.

The life cycle of an oak gall wasp involves an alternation of generations. A sexual generation emerges in the spring, mates and lays eggs on some part of the plant, producing one type of gall. From this emerges an asexual generation which lays its eggs, usually on another part of the plant, producing a different type of gall from which the next sexual generation emerges.

Gall makers are parasites and can be harmful to crops, but some are useful, like the nitrogen-fixing nodules on the roots of legumes. Those on oaks do little harm, while marble galls which are high in tannins have been used to produce dyes and a fine black ink. This ink is still used by US presidents as a deterrent to forging when signing official documents.

Incidentally Alfred Kinsey of Kinsey Reports fame started his academic life studying oak galls.

Jackie Muscott

Invasive Non Native Species in the Forth Valley

28th March 2014

Speaker: Alison Baker

Alison Baker gained an MSc in Environmental Management. She now works in the field of conservation of the natural heritage. She works for the River Forth Fisheries Trust (RFFT) as programme coordinator for the Forth Invasive Non Native Species (INNS) Programme.

Alison commenced by introducing the programme carried out by RFFT to help in its aim of conserving, protecting and enhancing the district's rivers by preventing, monitoring and controlling the introduction, spread and extent of INNS in a sustainable manner on a catchment-wide scale across the Forth District. The work is carried out regardless of how, why and when the species were introduced and whether it was deliberate or accidental.

She described in full the six main target species: giant hogweed, Himalayan balsam, Japanese knotweed, American skunk cabbage, signal crayfish and American mink. All of these affect our countryside in various ways and here are some examples:-

- River bank damage caused by signal crayfish burrowing into river banks and Himalayan balsam roots causing erosion.
- Outcompeting native species for food, for example, American mink consuming polecat food species. Mink also predate domestic fowl, take eggs and chicks in gull and tern colonies and are linked to the decrease in water voles in the Trossachs. American skunk cabbage competes for light by overshadowing rivers and other plants, finally choking watercourses. Signal crayfish eat many fish and invertebrates, and have no natural predators.
- Control includes the prevention of spread and eradication. For plants, methods include spraying, injecting, digging out and deadheading before plants set seed. Signal crayfish control methods are of limited success. It is illegal to take signal crayfish for personal consumption in Scotland and if seen on sale should be reported to the police.
- During disposal, attempts are made to minimise the amount of waste containing viable plant material, such as seeds, roots and rhizomes. The waste material is treated on site or taken away by a licensed waste carrier.

There is much collaboration between groups, such as Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH), Links Between Activities Developing the Rural Economy (LEADER), Loch Lomond and Trossachs National Park and Falkirk Environment Trust together with a number of local authorities, private landowners and farming communities. She described some of the pitfalls inherent in working alongside so many organisations such as cross-border and cross-authority licensing and permission from landowners along the length and breadth of the River Forth. They also co-ordinate the network of committed volunteers and community groups. Full training is given to volunteers along with relevant certifications and licensing when using specialist equipment. The programme also includes raising awareness in schools and communities, through talks, information packs and workshops.

Alison concluded by asking for volunteers and by thanking funders and supporters. The project is being part-financed by the Scottish Government and the European Community, Tyne, Esk, Forth Valley & Lomond, West Lothian and Fife Local Action Groups, LEADER 2007-13 Programme and is supported by SNH. Further information is available on these websites; www.fishforth.co.uk/inns and www.invasivespeciesscotland.org.uk.

Joanie McNaughton

Members' Night

23rd April 2014

This annual event gives members a chance to let others know a bit about their interests and the diversity of the membership.

Peter Leach hosted the evening which was kicked off by Peter Tothill outlining some of the

organisms named by Armand David, 1826-1900. Neville took up the microphone to update us on the progress of the Bird Atlas which is undoubtedly an enormous task. He ended with the dilemma to be overcome: How should they publish their work - on paper or digitally?

Although the refreshments are traditionally served by male members on members' night, Sue Crowther and Janet Watson were assisted by David Adamson on this occasion. On display during this time were: -

- Photographs by Katherine White whilst on a mountain flowers course at Kindrogan 2013
- Previous versions of the Bird Atlas
- Eunice Smith brought along some unwanted plants from her garden but no one else wanted them. The plants included bishops weed, daisy, dandelion, bittercress and ragwort.

Peter Leach amused us with a short film of animals captured by trail camera in which scratching badgers dominated. Like others, Peter has shown that we can all use readily available cameras to record wildlife in video format as well as still photographs.

The meeting came to a close after Stan da Prato took us on a brief trip to China showing us photographs and sounds of birds, some familiar and some not.

Sarah Adamson

Insects in Amber: Life within the Resin-producing Forests

17th September 2014

Speaker: Andrew Ross

We heard a talk from Andrew Ross, Principal Curator of Palaeobiology at the Department of Natural Sciences, National Museum of Scotland who has an interest in fossilised *arthropoda*, *chelicerata* including spiders, scorpions and horseshoe crabs and *myriapoda* millipedes and centipedes. For most of his career he has worked with amber, a hardened resin from trees, and looking at what hides inside this substance. We learnt that there were many types of amber from Baltic to Burmese and Canadian to Mexican, each encompassing different invertebrate taxa from many different time periods. A lot of behaviours which are seen in insects now, have been frozen in time from millions of years ago and found by Andrew through his work. Burmese amber which originates from the Hukawng Valley in the state of Kachin in Myanmar, was a large focus of the talk. It dates back roughly 100 million years, having once been thought to be on this planet the same length of time as Mexican amber, at roughly 30,000 years, and some incredible specimens have been found in it. Andrew showed many photos conveying examples of behaviour which still occurs, such as parasitism or predation, including nematode worms having been discovered inside caddisflies. New information on species which were thought to be well understood has arisen, and new taxa have been found. Andrew talked of the long time period to collect records of all the species, taking 200 years to record all the collection that is currently kept. Out of this time-consuming process come some very impressive specimens such as *Hymenoptera*, *Coleoptera* and even *Arachnida*. The wide diversity of amber species is incredible. This has obviously opened up the chance to understand species that have not existed on this planet for over 30,000 years. Amber can even fossilise spider webs as was seen in a photo shown by Andrew. Seeing his images of amber he has worked with, gave an incredible view into the past and the diversity of arthropods that have existed, making it a very enjoyable talk.

Ptolemy McKinnon

Status of Mute Swan in the Lothians since 1978

15th October 2014

Speaker: Allan Brown

A retired Town Planner/Ecologist, Allan worked for 16 years with Edinburgh Council and 18 years at Fife Council with a particular role in assessing the nature conservation impacts of development proposals, managing some nature reserves, establishing Fife Nature Biological Recording Centre

and overseeing the development of the Fife Biodiversity Action Plan. His main bird interest is in wildfowl. Mute swans *Cygnus olor* have been a particular area of interest since 1978 and he and his wife have co-ordinated national Mute Swan Censuses in Scotland in 1983, 1990 and 2002. He is also inland Wetland Birds Survey (WeBS) count co-ordinator for Fife and Lothians.

The Mute Swan Study was set up in 1977 when concerns were expressed by ornithologists about the apparent decline of swans in the area. Then, the population was surveyed with only 20 territorial pairs recorded in the Lothians, a decline from 56 pairs. Annual censuses have been carried out since 1978 with the study extending to Fife in 1991. Nesting pairs peaked in 2002-2006 with 100 pairs but steadily fell thereafter.

Swans roost and breed at various sites using different habitats: river, coastal, loch, pond and canal. They will build nests on islands, shore, river bank, rubbish piles and, under a bridge in Leith.

Survey sites are visited all year round at the River Tyne, Musselburgh, Pressmennan, ponds on the Dalmahoy Golf Course, Duddingston Loch, Craiglockhart Pond, Edinburgh Park, Union Canal and a new site on the dock at Western Harbour in Leith. It is the young that are counted rather than the number of eggs. The female incubates and can sit on the nest for five weeks without feeding herself. The young piggyback for the first 3-4 days. They are graded by size into groups: small to medium, medium to large and large to fledged; also by age: small young, pre-fledged, fledged, total breeding fledged and cygnets fledged. Recorded fledged by habitat, was noted as canal 82%, river 71% and still water 68%.

Ringed birds provides information such as dispersal, return and breeding in natal area, age of first breeding, survival, immigration/emigration, flock composition, age at death and much more. To ring, first catch the bird. Emphasis is on cygnets before fledging from mid-August to mid-October. Wild birds are mostly caught by canoe, and measurements are taken of the skull, tarsus and the wing. Rings must be carefully placed to avoid injury and facilitate reading. The plastic ring colour for Lothians and Fife is green and the number is read from the foot upwards. The metal British Trust for Ornithology (BTO) rings each has a unique code.

Problems affecting swans include cracked and chipped rings which need to be removed before they can cause damage to the bird. Fish lines, hooks and gun pellets when swallowed result in generalised debilitation. Flying swans hitting power cables and bird deflectors may not be damaged, however, they may cause a power failure!

Joanie McNaughton

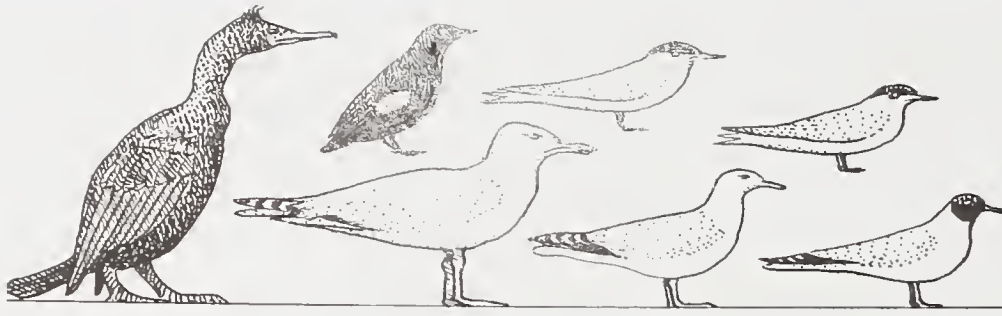
UK Spiders with Scottish Focus

19th November 2014

Speaker: Chris Cathrine

November's talk on spiders was kindly given by Chris Cathrine of the British Arachnological Society and director of Caledonian Conservation. He started with a good introduction to the UK arachnids in general, not just spiders but also harvestmen, mites, ticks, scorpions and pseudoscorpions! Next he moved on to the more manageable number of spider species to be found in Scotland. We heard about some of their anatomy and the useful identification characteristics for the various families of spider including eye configuration, jaw shape, relative body shapes and leg lengths and the shape of the web where visible. Then we went through some of Scotland's special species of spider, from *Dictyna major* which is found on beaches and thought to prey on small invertebrates on the strandline, through to *Micaria alpina*, an ant-associated spider only found at altitudes over 750m and on to the beautiful lichen running spider *Philodromus margaritatus* which is associated with Caledonian pine forest and has incredible camouflage. Finally we were also given a run-down on spider collecting and storage methods for those of us who might want to start studying them in earnest. A remarkable amount of information and some beautiful photographs were packed into a short amount of time. Thanks Chris!

Rob Wallace



Forth Island Seabird Counts 2014

Our annual counts wouldn't be the same without the weather trying to stir things up a bit. This year we did manage to do each count on the pre-arranged days, but only just! The Bass Rock count is done from a boat and the swell that day nearly caused us to cancel. We did manage to get the count done but these figures may be a bit less accurate than usual.

- Fulmar: This year's numbers are up a little (+9%) on the previous couple of years, however the figures for most islands are pretty much the same as their average for the previous five years.
- Cormorant: It is always difficult to get an accurate count without causing too much disturbance so individual counts of this species are sometimes more of an estimate. The total number of nests this year is below the average for the previous ten years but is only one nest less than the average for the previous five years.
- Shag: Shag numbers tend to increase for a number of years then crash over the winter. This is the second breeding season since the last crash and numbers are up (approx. +6%) on last year.
- Greater Black-backed Gull: The steady increase in numbers continues and after a couple of years where there was no increase, this year we again have a record number of breeding pairs. The biggest increases in territories were on Craigleith (+47%) and May Isle (+48%).
- Lesser Black-backed Gull and Herring Gull: Due to the effort required and the manpower available, these species are not counted on all islands every year. Extra effort was put in this year to get a count done on Craigleith where LBB gulls are well down on the 647 nests counted in 2002 and herring gulls show a big increase on the previous count of 823 nests in 2002.
- Kittiwake: Apart from Inchcolm, numbers on the other islands have increased compared to last year. However, since their peak in the mid-1990's the general downward trend would appear to be continuing.
- Terns: On May Isle common tern numbers are down while Arctic tern numbers are the same as last year. On Long Craig common tern numbers are the best they have been since 2007. Correction to last year's report: 73 pairs of common tern bred on Long Craig in 2013.
- Razorbill: Over the past 20 years the breeding numbers of this species have varied between 2,500 and 4,200. This year's count is just a few pairs less than the average for the previous 20 years.
- Guillemot: Numbers on the breeding ledges are up on all islands this year and the total number is higher than it has been for the previous seven years. We also counted some birds on Inchcolm where previously we have only recorded a single bird in 2003. Could this indicate the start of breeding on this island?
- Puffin: This year this species was only counted on Craigleith and Fidra where numbers of apparently unoccupied burrows (AOB) are up on last year (+10% and +35% respectively).

With thanks to the Forth Seabird Group, Scottish Wildlife Trust and Scottish Natural Heritage for allowing the use of their data.

Bill Bruce

Summary of Seabird Counts on the Islands in the Firth of Forth

2014	Bass Rock	Craigleith	Lamb	Fidra	Inchkeith	Carr Craig	Inchcolm	Haystack	Inch- mickery + Cow and Calves	Inch Garvie / Forth Bridge	Long Craig	May Isle	Total
Fulmar (AOS)	c41	118	9	171	240	0	167	0	36	220		325	1,327
Cormorant (AON)	0	41	56+	0	83	c66	0	0	0	0	0	0	246
Shag (AON)	12(FSG)	137	49	162	182	c21	18	0	65	0	0	x	650
Gannet (AON)	x	0	0	0	0	0	0	0	0		0	0	x
Eider (AON)	2+	63+	x	26+	x	0	0	0	26	37	3	975	1,132+
Great B-b Gull (AON)	0	31	1	3-4	c14	1	x	0	5	1	0	51	107
Lesser B-b Gull (AON)	2	c190	x	155	x	c35	x	c21	131	c35	0	2,047	2,616+
Herring Gull (AON)	c71+	c1500	x	743	x	c55	x	c15	218	c288	0	4,200	7,090+
Kittiwake (AON)	c324	300	84	167	273	0	65	0	0	0	0	2,464	3,677
Common Tern (AON)	0	0	0	0	0	0	0	0	0	0	131	10-15	141
Arctic Tern (AON)	0	0	0	0	0	0	0	0	0	0	0	400-405	400
Roseate Tern (AON)													0
Sandwich Tern (AON)	0	0	0	0	0	0	0	0	0	0	0	0	0
Razorbill (AOS)	c124	211	65	170	118	0	12	0	0	0	0	2987 3796 b	3,563
Guillemot (birds on cliffs)	c2050	c2910	c2800	c640	322	0	14	0	0	0	0	16602 14248 pr	16,938
Puffin (birds unless otherwise stated)	2+ b	5475 AOB	63 b	1026 AOB	740+ b	0	51 b	0	25 b	0	0	x	6,501+ AOB

AOB/AON/AOS/AOT=Apparently occupied burrows/nests/sites/territories;

x=birds present and breeding but not counted;

0=none breeding; c=circa; b=birds pr=pair

New butterflies: incomers or home-comers?

Last year I counted a record number of ringlets *Aphantopus hyperantus* in the Lothians, many more than meadow browns *Maniola jurtina*. Yet when I first started taking an interest in butterflies ringlets seemed to be quite uncommon.

So I turned to a book, 'The Butterflies of Scotland' by George Thomson, published in 1980. Apparently ringlets were 'abundant but local' in the Lothians in 1852, though they may have already started to decline. There were no records after 1928 when a single specimen was recorded in East Lothian, though the butterfly remained present in the Borders and may well have started its come-back as the book was published.

This is a pattern followed by many other butterflies. The orange tip *Anthocharis cardamines* for instance seems to have been quite widespread in the Lothians and Borders in pre-Victorian times. But by 1852 it had become scarce around Edinburgh, and by 1900 had disappeared from the Lothians, the Borders, much of Perthshire and the Glasgow area, though still present in south-west Scotland. By the 1950s it had started to recolonize these areas.

The comma *Polygonia c-album* may have been found as far north as Fife in early Victorian times, but by 1880 its disappearance from parts of Berwickshire was being mourned in a magazine article. By 1920 the comma's range had retracted southwards to the English Midlands, after which it expanded again reaching the north of England by the 1970's and thence to Scotland.

The peacock *Aglais io* presents a slightly different picture. In the 19th century, it was probably resident in south west Scotland and possibly parts of the south east. It seems to have been spasmodic further north, suggesting northward migration in 'good' years with most of the records being from late summer. There is some evidence of retraction of its range in late Victorian times, but by 1980 it was moving north, and is now frequently found in Edinburgh gardens in early spring, evidence that it has overwintered successfully.



The speckled wood *Parage aegeria* was once found scattered over Scotland south of a line from Aberdeen to Skye apart from the central Highlands. Again there was a decline in the mid-19th century when it disappeared from the Edinburgh area, the Borders and much of Perthshire leaving the main populations in the west and around the Moray Firth. But from the 1950's its range expanded again and it seems to have returned to the Lothians via the Borders.

Other butterflies recently seen in the Lothians such as the small skipper *Thymelicus sylvestris* and the holly blue *Celastrina argiohus* seem to be genuine newcomers. There are a couple of dubious 19th century records of the

former, and a lone 1773 record from Dumfries of the latter. In 1950 however a female holly blue was taken, again in Dumfries, and eggs were obtained and young reared, after which there were one or two more scattered records in Scotland before 1980, probably migrants from the south in bumper years.

Returning to the ringlet, this year I counted around 340 ringlets and around 125 meadow browns from casual visits to sites in the Lothians where one or other was present. As far as my records are concerned, numbers of ringlets have outstripped those of meadow browns consistently over the last 10 years, apart from 2011 when numbers were about equal. So they are doing very well.

Jackie Muscott

